Catch and Effort Statistics of the Canadian Groundfish Fishery on the Pacific Coast in 1983

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ABSTRACT

Leaman, J. E. 1984. Catch and effort statistics of the Canadian groundfish fishery on the Pacific coast in 1983. Can. Tech. Rep. Fish. Aquat. Sci. 1312: 87 p.

Catch and effort statistics for the Canadian groundfish fishery (excluding halibut) on the Pacific coast in 1983 are presented. Statistics are shown by major areas, minor areas and INPFC areas, in metric tonnes (t). Total landings in 1983 were 36,537 t, 2% more than in 1982. The bulk (79%) of the catch was taken by trawl gear. The main species landed were Pacific ocean perch, Pacific cod, sablefish, lingcod, dogfish and hake.

Key words: catch statistics, effort statistics, groundfish, Pacific coast

RÉSUMÉ

Leaman, J. E. 1984. Catch and effort statistics of the Canadian groundfish fishery on the Pacific coast in 1983. Can. Tech. Rep. Fish. Aquat. Sci. 1312: 87 p.

On présente les statistiques sur les prises et sur l'effort de pêche du poisson de fond (sauf le flétan) au Canada sur la côte du Pacifique en 1983. Les statistiques sont indiquées en tonnes métriques (t) pour les petites zones, les grandes zones et les zones administrées par la Commission internationale des pêcheries du Pacifique nord (CIPPN). Les débarquements se sont chiffrés à 36,537 t en 1983, soit une hausse de 2% par rapport à 1982. La plus grand partie (79%) des prises ont été prélevées au chalut. Le sébaste du Pacifique, la morue du Pacifique, la morue charbonnière, la morue-lingue, l'aiguillat commun et le merlu ont été les principales espèces débarquées.

Mots-clés: statistiques sur les prises, statistiques sur l'effort de pêche, poisson de fond, côte du Pacifique

INTRODUCTION

The Canadian fishery for groundfish along Canada's west coast involves many species of demersal fishes, the majority of which are caught by bottom and midwater trawls. The remaining catch is taken by trap, longline, handline and troll. Excluding halibut these groundfish landings contributed an average of 30,297 metric tonnes (t) to the annual fish production of Canada during 1973-82. The total landings of major groundfish species, caught by all types of gear from all areas on the Pacific coast during 1973-83, are shown in Table 1.

The Fisheries Research Branch, Pacific Biological Station, Nanaimo, B.C., maintained port liaison officers at Vancouver, Steveston and Prince Rupert during 1983. These persons conducted interviews with captains of trawl, longline and trap vessels to collect information on effort expended for groundfish catches, by species, area and depths as well as other pertinent data. The landings not covered by these interviews were obtained from the sales slips collected by the Statistical Services of Fisheries Management in Vancouver. All available 1983 data are included in this report. While changes are rare, individuals using these data for analyses should refer to the author for confirmation.

Total 1983 landings of 36,537 t were 21% above the 1973-82 mean and 2% above the 1982 level. Pacific ocean perch and various rockfish species were the dominant species, accounting for more than one-third of the total catch. There were increases in landings of sablefish (4,414 t), pollock (1,070 t) and hake (3,122 t). 1983 landings of lingcod (3,755 t) and Pacific cod (4,505 t) showed decreases from 1982 catches.

This portion of the document is the traditional report of landings (t) by species, by discrete domestic (minor) fishing areas and by larger United States-Canadian (major) areas, commonly called Pacific Marine Fisheries Commission (PMFC) areas.

MAJOR STATISTICAL AREA DIVISIONS

Standardization between Canada and the United States in reporting of groundfish catches on the Pacific coast has resulted in assignment of catches to certain major statistical areas. In the United States these international areas are used by the Pacific Marine Fisheries Commission in their annual summaries of catch statistics. Figure 1 illustrates the major statistical areas off British Columbia and gives their numerical designation. The following is a complete description of the boundaries of these areas.

AREA 3B--NORTHWEST WASHINGTON COAST

From latitude 47°20'N to a line bearing 220° True from the mid-point of the Bonilla-Tatoosh line and crossing said parallel of latitude. This area

Table 1. Total Canadian landings[a] (t) of groundfish by species, taken by all gear from all areas on the Pacific coast, 1973-83.

Species	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	Mean 1973-82	1983
English sole	740	663	1,100	1,307	1,469	809	1,069	1,244	1,500	559	1,046	532
Rock sole	819	948	1,740	2,157	1,252	1,312	1,874	1,843	1,059	745	1,375	668
Petrale sole	474	684	442	340	289	230	202	222	290	367	354	439
Dover sole	830	822	1,030	1,158	700	736	861	1,273	1,245	914	957	871
Rex sole	144	137	99	133	99	102	203	145	190	74	133	49
Starry flounder	63	61	91	50	89	74	296	118	198	168	121	66
Turbot	563	370	953	1,310	1,599	2,326	1,826	1,448	946	525	1,187	323
Other flatfish	15	6	2	9	15	25	59	57	183	220	59	199
Pacific cod	7,487	8,828	10,272	10,107	7,717	6,750	9,554	8,703	6,708	4,810	8,094	4,505
Lingcod	2,136	2,540	2,846	2,320	2,248	2,004	2,098	2,151	2,467	4,162	2,497	3,755
Sablefish	965	503	925	795	1,088	831	2,031	3,795	3,888	3,976	1,880	4,414
Pollock	86	48	103	1,322	890	2,407	3,387	2,201	1,251	924	1,262	1,070
Hake	-	-	-	-	2	2	818	606	5,691	2,826	995	3,122
Pacific ocean perch	1,398	1,529	2,040	1,745	2,716	3,864	2,819	5,290	5,103	5,983	3,249	5,655
Other rockfish	1,429	1,136	1,214	2,543	5,235	6,608	5,962	4,476	4,857	5,093	3,855	7,024
Misc. species	108	97	182	220	289	163	215	303	266	141	198	156
Dogfish	5,025	1,070	714	242	1,730	3,126	4,757	4,547	1,151	3,875[b]	2,624	3,274[b]
Animal food	297	174	37	100	49	112	214	191	42	65	128	94
Reduction	69	274	211	299	181	302	240	528	302	450	286	321
Total	22,648	19,890	24,001	26,157	27,657	31,783	38,485	39,139	37,337	35,877	30,297	36,537

[a]Does not include catches from joint-venture or foreign fishery, see Tables 63 and 64.

[b]Includes dogfish landed at United States ports for which no gear type or area data are available.

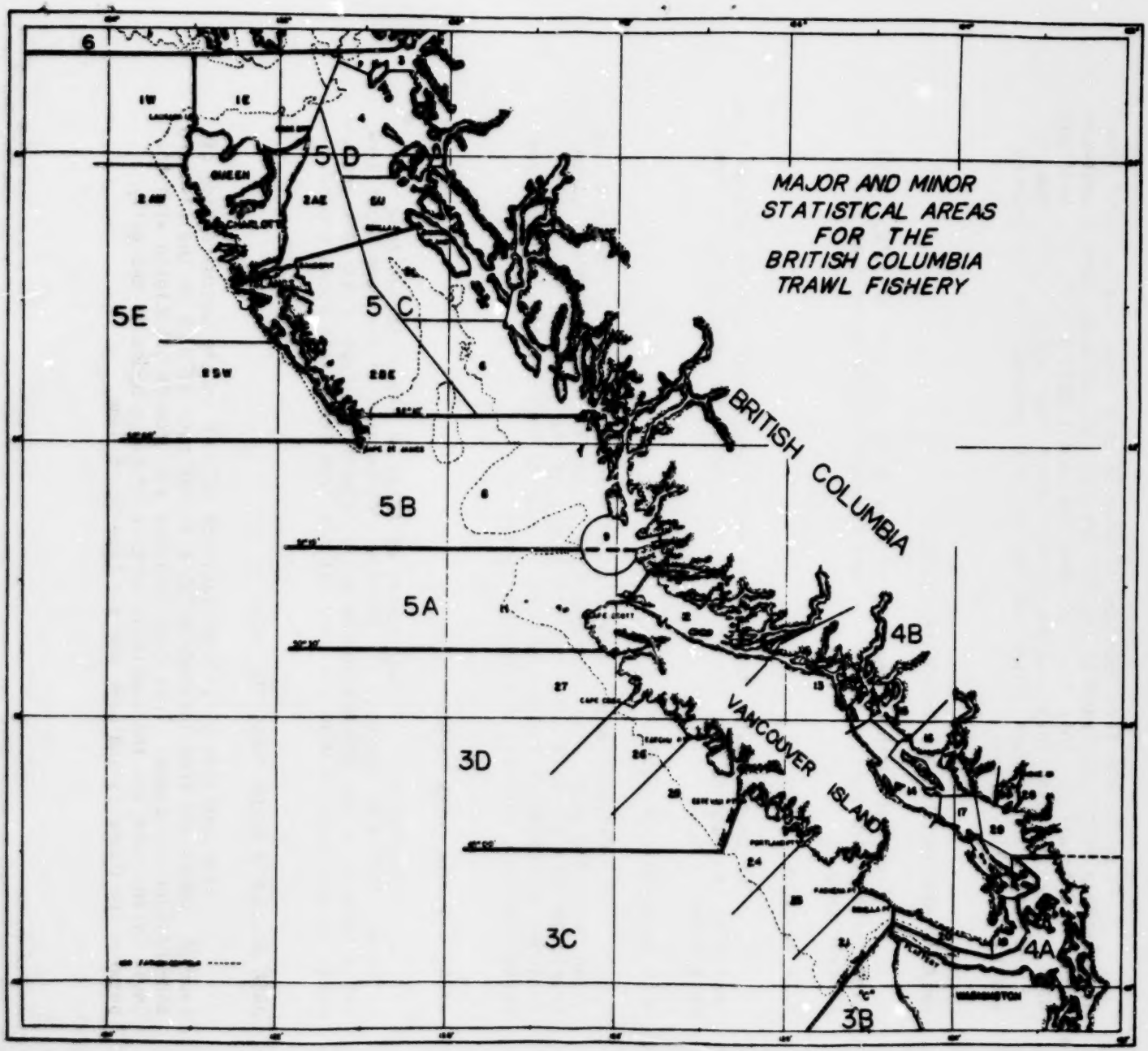

MAJOR AND MINOR
STATISTICAL AREAS
FOR THE
BRITISH COLUMBIA
TRAWL FISHERY
6
5D
5E
5C
5B
5A
4B
3D
3C
4A
3B
BRITISH COLUMBIA
VANCOUVER ISLAND

Fig. 1.

includes the Quillayute and Umatilla Reef grounds and the shallow waters off Cape Flattery.

AREA 3C--SOUTHWEST COAST VANCOUVER ISLAND

From the northern boundary of Area 3B to a line bearing 200° True from Estevan Point southward to the 49° parallel of latitude, thence westward along said parallel. This area includes the Cape Flattery Spit, the Swiftsure Bank, La Pérouse Bank (Big Bank or 40 mile Bank), the Cabbage Patch, the Firing Range, the Lennard Island and Sydney Inlet grounds, and the inshore waters of Barkley Sound.

AREA 3D--NORTHWEST COAST VANCOUVER ISLAND

From the northern boundary of Area 3C to latitude 50°30'N. This area includes the Nootka, Esperanza, and Kyuquot grounds as well as the Estevan Deep.

AREA 4A--PUGET SOUND

The United States territorial waters inside the Bonilla-Tatoosh line including the Juan de Fuca Strait and Puget Sound. No Canadian catch from this area.

AREA 4B--STRAIT OF GEORGIA

The Canadian waters from the Bonilla-Tatoosh line inside to a line drawn north and south (Mag.) through Pine Island at the upper end of Queen Charlotte Strait. This area, defined simply as the Strait of Georgia, includes all Canadian inshore grounds of Juan de Fuca Strait, Johnstone and Queen Charlotte Straits, and Georgia Strait.

AREA 5A--SOUTH QUEEN CHARLOTTTE SOUND

From the northern boundaries of Areas 4B and 3D to latitude 51°15'N. This area includes all grounds incorporated in the Cape Scott Bank and a portion of the grounds in the gully between the Cape Scott Bank and the Goose Island Bank. It also includes catches from the Virgin Rocks ground.

AREA 5B--NORTH QUEEN CHARLOTTE SOUND

From latitude 51°15'N to latitude 52°00'N on the westward side of Cape St. James and from latitude 51°15'N to latitude 52°10'N on the eastward side of Cape St. James. This area includes all grounds associated with the Goose Island Bank and the remaining portion of the grounds in the gully between the Goose Island Bank and the Cape Scott Bank.

AREA 5C--SOUTH HECATE STRAIT

From latitude 52°10'N to a line drawn from Spit Point (Sandspit) on Moresby Island to the southern tip of Bonilla Island. This area includes the grounds known as the "Horseshoe" and the "Ole Spot" in the central region of the Strait.

AREA 5D--NORTH HECATE STRAIT

From the northern boundary of Area 5C to latitude 54°40'N, limited to the westward by longitude 133°W across Dixon Entrance. This area includes the Two Peaks ground (northeast of Rose Spit), the Butterworth-Warrior edge, the Fingers (southwest of Archibald Island), the Oval Hill ground, the White Rock ground (northwest of Bonilla Island), the Skidegate Inlet ground, the Fife Point ground, the southwest Seal Rocks ground, and grounds in Dixon Entrance.

AREA 5E--WEST COAST QUEEN CHARLOTTE ISLANDS

From latitude 52°00'N to 54°40'N, limited to the eastward by longitude 133°W across Dixon Entrance.

AREA 6--ALASKA

Encompasses waters bounded on the south by latitude 54°40'N and on the west by longitude 147°W.

MINOR STATISTICAL AREA DIVISIONS

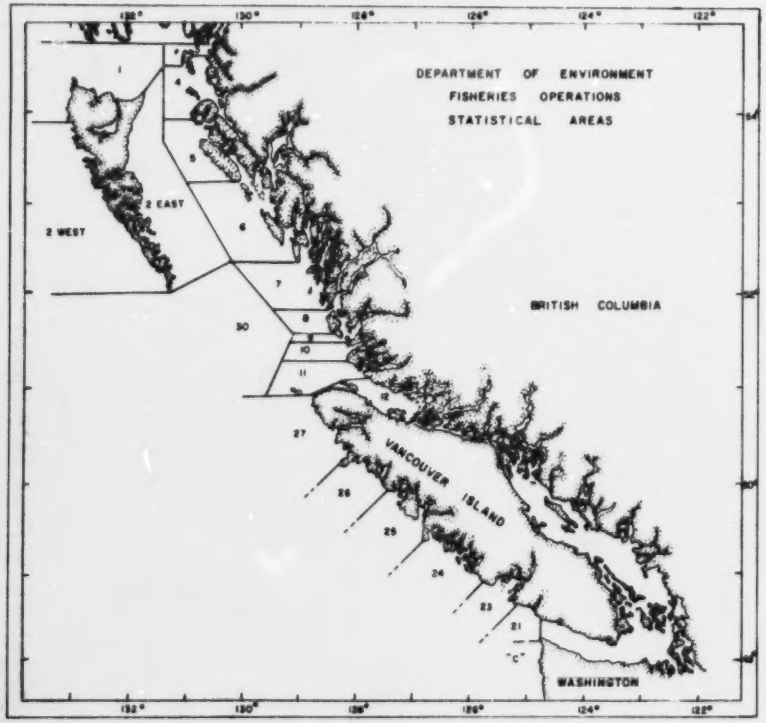
Minor areas are used to give more detailed information on region of capture of groundfish. They are areas within major areas and are basically the former Fisheries Management statisitical areas with some modifications. Figure 2 illustrates the areas, the modifications are catalogued below:

1. Minor Area 1 has been divided into to minor areas, 1E and 1W. This boundary lies along longitude 133°W.

2. Minor Area 2 West has been divided into two minor areas, 2AW and 2BW. This boundary lies along 52°40'N latitude.

3. The boundary between Area 2 East and Area 4 has been shifted northwestward to Rose Spit. This brings the whole of the "Two Peaks" grounds within Area 4.

4. Minor Area 5 has been divided into two sub-areas, designated 5u and 5L, this boundary lies along the Sandspit-Bonilla Island line, which is the internationally agreed line of division between north and south Hecate Strait (Areas 5D and 5C).


DEPARTMENT OF ENVIRONMENT
FISHERIES OPERATIONS
STATISTICAL AREAS
BRITISH COLUMBIA
2 WEST
2 EAST
VANCOUVER ISLAND
WASHINGTON
"C"

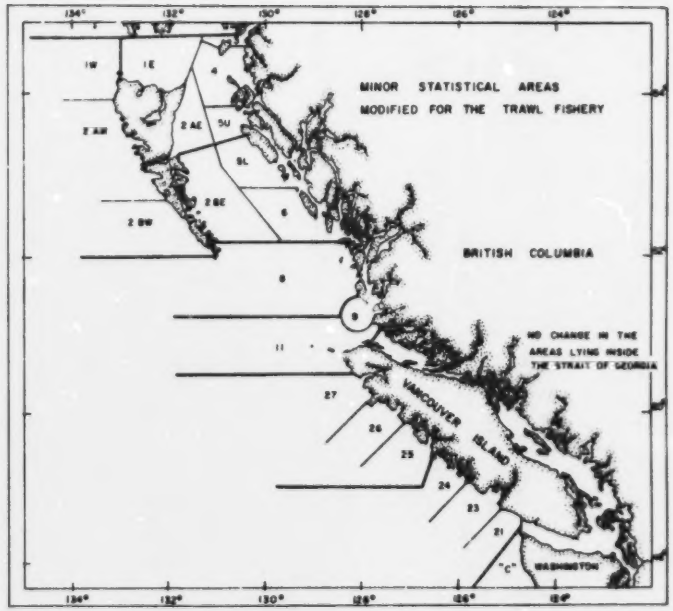

MINOR STATISTICAL AREAS
MODIFIED FOR THE TRAWL FISHERY
BRITISH COLUMBIA
NO CHANGE IN THE
AREAS LYING INSIDE
THE STRAIT OF GEORGIA
VANCOUVER ISLAND
WASHINGTON
"C"

Fig. 2.

5. The boundary between Areas 5D and 5C has been continued through Area 2 East to divide it into two minor areas, 2AE and 2BE.

6. The southern boundary of Areas 2 East and 6 has been shifted to lie along 52°10'N latitude to conform with the boundary between Areas 5C and 5B.

7. Area 8 has been expanded to include the whole of the Goose Island Bank. This has involved (a) shifting the northern boundary and eliminating Area 7, (b) shifting the southern boundary and eliminating the offshore portion of Area 9, and (c) the elimination of Area 30, previously used for offshore catches in Queen Charlotte Sound. There is, in this report, no westward limit to Area 8.

8. Area 9 has been changed and is now a circle 24 mi in diameter surrounding the Sea Otter group and the Virgin Rocks ground. It is considered to be part of Area 5A.

9. Area 11 has been expanded to include all of the Cape Scott Bank. This has meant the elimination of Area 10 and the addition of the part of Area 27 lying northward of 50°30'N latitude. This is to conform with the boundary between Areas 5A and 3D.

10. The western limit of area 12 is now Bates Passage.

11. The boundary between Areas 24 and 25 has been shifted to lie along the boundary between Areas 3D and 3C.

12. The boundary between Areas 23 and 24 has been shifted northwards to Portland Point and it lies on a bearing of 225° True. This is to bring the whole of the ground known as Firing Range (which formerly lay on the boundary between these two areas) entirely within Area 23.

All other minor areas remain the same as those defined by the Fisheries Management Statistical Chart.

The following shows the relationship between the major and the minor areas:

Major areas		Minor areas
6	Alaska	Southeastern, Yakutat[1]
5E	West Coast Queen Charlotte Islands	1W, 2AW, 2BW
5D	North Hecate Strait	1E, 2AE, 3, 4, 5U
5C	South Hecate Strait	2BE, 5L, 6
5B	North Queen Charlotte Sound	8
5A	South Queen Charlotte Sound	9, 11
3D	Northwest Coast Vancouver Island	27, 26, 25
3C	Southwest Coast Vancouver Island	24, 23, 21
3B	Northwest Washington Coast	"C"
4B	Strait of Georgia[2]	12, 13, 14, 15, 16, 17, 18, 19, 20, 28, 29

[1]Southeastern - from 54°40'N to 137°W. Yakutat from 137°W to 147°W.
[2]Including Johnstone and Queen Charlotte Straits and the Canadian portion of the Strait of Juan de Fuca.

TRAWL FISHERY

In 1983, catch and effort data were collected by port liaison officers for 64%, by weight, of the total trawl landings. Through the cooperation of the Statistics Division of the Economics and Statistics Branch, the remaining 36% of the landings were recorded from sales slips, for which no effort is available. Catch-per-unit-effort (CPUE) statistics obtained from the interview data were used to estimate the effort expended for the catch reported on these sales slips.

From total landed catch and total estimated effort data, an average CPUE (t/h) was calculated for each major fishing area. Also calculated was the percentage of total catch and effort expended in each of these areas. These last two statistics not only serve to show relative importance of each area, but are used in the calculation of the "success ratio". This paramter is defined as the percent of total catch divided by percent of total effort.

Total landings in 1983 (excludes dumped[3] and discarded[4] fish) by the British Columbia trawl fleet were 28,848 t, 2% above the total for 1982. Effort expended decreased 4% to 33,288 h resulting in an overall CPUE of 0.867 t/h, 6% above the 1982 rate.

Pacific ocean perch was the strongest contributor to the trawl fishery with landings of 5,655 t, even though it declined 5% from 1982. Total rockfish landings were 12,214 t and comprised 42% of the total trawl landings. There were increases in landings of petrale sole (439 t) and pollock (1,070 t). Trawl landings of dogfish decreased 44% to 967 t. Turbot landings continued to decline to only 324 t.

Annual trawl catch and effort data are shown in Table 2-5. Landings by major area, month and species are presented in Table 6-13. Landings by minor area, month and species are given in Table 14-41.

AREA 4B--STRAIT OF GEORGIA

Total landings (4,883 t) from this area remained unchanged but the total effort declined 22%, resulting in a 28% increase in CPUE to 0.766 t/h. Hake accounted for 64% (3,122 t) of the catch. Pacific cod and dogfish were the other main species caught.

AREA 3C--SOUTHWEST COAST OF VANCOUVER ISLAND

Landings decreased 31% to 3,592 t and the effort and CPUE both were down 17% to 6,070 h and 0.592 t/h, respectively. Lingcod, Pacific cod and dogfish were the major species taken in 1983 even though they all decreased at least 36% from the previous year.

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[3]Fish caught and retained but eventually rejected at the plant as being unsuitable for any utilization.

[4]Fish caught and discarded at sea by fishermen.

AREA 3D--NORTHWEST COAST OF VANCOUVER ISLAND

Both total effort (3,447 h) and total catch (2,828 t) rose substantially from 1982, but the CPUE decreased 12% to 0.820 t/h. Rockfish landings of 2,078 t, of which canary rockfish (699 t), silvergray rockfish (560 t), and Pacific ocean perch (463 t) were the dominant species, accounted for 73% of the total.

AREA 5A--SOUTH QUEEN CHARLOTTE SOUND

The increase in landings of Pacific ocean perch to 527 t and yellowmouth rockfish to 411 t contributed to the 23% rise in trawl landings from this area to 2,731 t. CPUE increased 14% to 0.722 t/h. Lingcod was the other main species landed from this area.

AREA 5B--NORTH QUEEN CHARLOTTE SOUND

This area contributed 18% (5,121 t) of the total British Columbia trawl production; CPUE rose slightly above the 1982 level to 1.070 t/h. The main species taken from this area were Pacific ocean perch (2,358 t), lingcod (772 t), silvergray rockfish (376 t), and yellowmouth rockfish (342 t).

AREA 5C--SOUTH HECATE STRAIT

Total catch (2,257 t), effort (2,326 h) and CPUE (0.970 t/h) showed decreases from the previous year. Pacific ocean perch remained the dominant species even though landings were less than half those taken during 1982. Pacific cod and silvergray rockfish were the other main species.

AREA 5D--NORTH HECATE STRAIT

Total catch of 4,406 t remained at about the same level as in 1982. Effort in this area dropped 13% to 5,190 h, while CPUE showed an increase of 12% to 0.849 t/h. The major species taken in this area were Pacific cod and pollock.

AREA 5E--WEST COAST QUEEN CHARLOTTE ISLANDS

Both total landings (3,030 t) and total effort (1,314 h) showed increases, 37% and 81% respectively. This resulted in an overall decrease of 24% in CPUE (2.306 t/h). Total rockfish landings of 2,430 t accounted for 80% of the total catch of which Pacific ocean perch (1,127 t), yellowmouth rockfish (640 t), rougheye rockfish (202 t) and redstripe rockfish (161 t) were the dominant species.

The following species were observed in trawl landings in British Columbia in 1983.

Family and common name	Scientific name
Fishes	
Acipenseridae	
Green sturgeon	Acipenser medirostris (Ayres)
Anoplopomatidae	
Sablefish	Anoplopoma fimbria (Pallas)
Clupeidae	
American shad	Alosa sapidissima (Wilson)
Pacific herring	Clupea harengus pallasi (Valenciennes)
Embiotocidae	
Pile perch	Rhacochilus vacca (Girard)
Gadidae	
Pacific cod, true cod or gray cod	Gadus macrocephalus (Tilesius)
Pacific hake	Merluccius productus (Ayres)
Walleye pollock	Theragra chalcogramma (Pallas)
Hexagrammidae	
Lingcod	Ophiodon elongatus (Girard)
Pleuronectidae	
Arrowtooth flounder or turbot	Atheresthes stomias (Jordan and Gilbert)
Petrale sole	Eopsetta jordani (Lockington)
Rex sole	Glyptocephalus zachirus (Lockington)
Flathead sole	Hippoglossoides elassodon (Jordan, Gilbert)
Butter sole	Isopsetta isolepis (Lockington)
Rock sole	Lepidopsetta bilineata (Ayres)
Dover sole	Microstomus pacificus (Lockington)
English sole	Parophrys vetulus (Girard)
Starry flounder	Platichthys stellatus (Pallas)
Curlfin sole	Pleuronichthys decurrens (Jordan, Gilbert)
Sand sole	Psettichthys melanostictus (Girard)
Rajidae	
Big skate	Raja binoculata (Girard)
Longnose skate	Raja rhina (Jordan and Gilbert)
Scorpaenidae	
Rougheye rockfish	Sebastes aleutianus (Jordan, Evermann)
Pacific ocean perch	Sebastes alutus (Gilbert)
Redbanded rockfish	Sebastes babcocki (Thompson)
Shortraker rockfish	Sebastes borealis (Barsukov)

Family and common name	Scientific name
Silvergray rockfish	Sebastes brevispinis (Bean)
Copper rockfish	Sebastes caurinus (Richardson)
Dusky rockfish	Sebastes ciliatus (Tilesius)
Darkblotched rockfish	Sebastes crameri (Jordan)
Splitnose rockfish	Sebastes diploproa (Gilbert)
Greenstriped rockfish	Sebastes elongatus (Ayres)
Widow rockfish	Sebastes entomelas (Jordan and Gilbert)
Yellowtail rockfish	Sebastes flavidus (Ayres)
Quillback rockfish	Sebastes maliger (Jordan and Gilbert)
Black rockfish	Sebastes melanops (Girard)
China rockfish	Sebastes nebulosus (Ayres)
Bocaccio	Sebastes paucispinis (Ayres)
Canary rockfish	Sebastes pinniger (Gill)
Redstripe rockfish	Sebastes proriger (Jordan and Gilbert)
Yellowmouth rockfish	Sebastes reedi (Westrheim and Tsuyki)
Yelloweye rockfish	Sebastes ruberrimus (Cramer)
Harlequin rockfish	Sebastes variegatus (Quast)
Pygmy rockfish	Sebastes wilsoni (Gilbert)
Sharpchin rockfish	Sebastes zacentrus (Gilbert)
Shortspine thornyhead	Sebastolobus alascanus (Bean)
Squalidae	
Spiny dogfish	Squalus acanthias (Linnaeus)
INVERTEBRATES	
Cancridae	
Dungeness crab	Cancer magister (Dana)
Rock crab	Cancer productus
Lithodidae	
Box crab	Unknown species
Maiidae	
Tanner crab	Chionoecetes bairdi (Rathbun)
Octopoda	
Octopus or devilfish	Octopus sp.
Pectinidae	
Giant Pacific scallop	Pecten caurinus (Gould)
Teuthoidea	
Squid	Loligo opalescens (Berry)

Table 2. Total catch (t) (excludes dumped and discarded fish) and related effort (h) for the British Columbia trawl fleet in 1983.

	Major Area									
	4B		3C		3D		5A		5B	
Month	Catch	Effort	Catch	Effort	Catch	Effort	Catch	Effort	Catch	Effort
January	172.52	591	4.75	11	28.00	23	-	-	-	-
February	209.42	628	136.56	302	4.92	14	241.70	192	296.91	118
March	176.82	478	215.59	276	0.06	2	245.81	199	508.58	234
April	1,209.97	535	359.68	539	156.76	295	235.91	117	511.73	226
May	1,769.65	593	531.29	1184	417.50	483	472.03	364	1,481.65	893
June	354.54	567	884.73	1606	757.13	905	399.00	783	945.17	1057
July	85.07	340	388.93	656	353.52	438	340.02	779	415.72	717
August	113.95	359	285.47	434	81.28	117	211.06	386	477.85	770
September	151.44	474	430.24	455	420.49	489	182.29	359	245.89	343
October	262.01	704	303.82	503	480.44	532	199.76	283	175.13	335
November	263.23	753	39.88	80	84.19	108	151.17	219	54.50	78
December	114.80	350	10.63	24	43.86	41	52.44	103	7.85	14
Total	4,883.42	6372	3,591.57	6070	2,828.15	3447	2,731.19	3784	5,120.98	4785
CPUE (t/h)	0.766		0.592		0.820		0.722		1.070	
% catch	16.93		12.45		9.80		9.47		17.75	
% effort	19.14		18.23		10.36		11.37		14.37	
Success ratio	0.88		0.68		0.95		0.83		1.24	

Table 2 (cont'd)

Month	Major Area							
	5C		5D		5E		Total	
	Catch	Effort	Catch	Effort	Catch	Effort	Catch	Effort
January	61.47	56	66.29	123	233.81	100	566.84	904
February	105.51	158	453.42	570	542.60	227	1,991.04	2,209
March	70.35	62	449.80	498	263.58	117	1,930.59	1,866
April	215.47	307	724.27	1050	610.65	225	4,024.44	3,294
May	641.22	715	480.19	897	387.70	138	6,181.23	5,267
June	402.12	405	433.78	481	138.38	154	4,314.85	5,958
July	61.91	109	316.81	260	143.73	54	2,105.71	3,353
August	279.72	173	109.19	100	171.89	58	1,730.41	2,397
September	215.29	125	165.63	131	258.86	100	2,070.13	2,476
October	92.62	73	335.74	306	213.53	94	2,063.05	2,830
November	111.07	143	313.17	317	65.46	47	1,082.67	1,745
December	-	-	557.65	457	-	-	787.23	989
Total	2,256.75	2,326	4,405.94	5,190	3,030.19	1,314	28,848.19	33,288
CPUE (t/h)	0.970		0.849		2.306		0.867	
% catch	7.82		15.27		10.51			
% effort	6.99		15.59		3.95			
Success ratio	1.12		0.98		2.66			

Table 3. Total British Columbia trawl landings[a] (t) by main species and major area in 1983 (excluding dumped and discarded fish).

	Major Area								
Species	4B	3C	3D	5A	5B	5C	5D	5E	Total
English sole	34.96	44.33	3.79	9.89	8.57	36.26	392.58	1.16	531.54
Rock sole	4.37	54.67	31.35	124.16	205.91	59.88	187.39	0.40	668.13
Petrale sole	6.68	184.00	29.58	60.37	100.27	10.50	24.48	23.30	439.18
Dover sole	45.97	67.09	30.42	26.92	15.58	11.28	241.61	432.48	871.35
Rex sole	0.16	0.73	-	-	2.17	0.41	33.95	11.56	48.98
Starry flounder	28.45	1.45	0.01	0.04	0.02	0.02	35.77	0.06	65.82
Turbot	13.18	45.54	-	81.08	78.29	9.33	94.25	1.84	323.51
Other flatfish[b]	121.17	49.24	11.04	3.10	6.03	1.01	7.17	-	198.76
Pacific cod	903.52	673.87	20.46	81.28	102.15	639.49	2044.57	0.72	4496.06
Lingcod	85.25	970.72	442.40	572.84	772.37	49.29	94.20	1.32	2988.39
Sablefish	10.45	115.58	31.54	33.82	5.94	3.60	15.33	57.77	274.03
Pollock	25.30	3.28	0.55	11.29	9.54	6.18	985.88	28.22	1070.24
Hake	3121.55	-	-	-	-	-	-	-	3121.55
Pacific ocean perch	-	373.97	463.33	526.56	2358.13	793.88	11.51	1127.37	5654.75
Other rockfish[b]	27.41	488.28	1615.07	1116.25	1337.95	553.41	117.81	1302.56	6558.74
Misc. species[b]	20.54	14.30	1.43	10.50	12.96	19.22	74.52	1.35	154.82
Dogfish	434.23	450.49	54.25	-	8.50	2.60	16.67	-	966.74
Animal food[b]	-	-	-	9.67	11.29	27.68	17.71	27.77	94.12
Reduction[b]	0.23	54.03	92.93	63.42	85.31	2.71	10.54	12.31	321.48
Total	4883.42	3591.57	2828.15	2731.19	5120.98	2256.75	4405.94	3030.19	28848.19
Effort (h)	6372	6070	3447	3784	4785	2326	5190	1314	33288

[a]Does not include catches from joint-venture or foreign fisheries, See Tables 63-64.

[b]Refer to Table 4 for breakdown by species.

Table 4. Species landed (t) as "other flatfish", "other rockfish", "miscellaneous species", "animal food", and "reduction" by major area in 1983.

Species	Major Area								
	4B	3C	3D	5A	5B	5C	5D	5E	Total
Other flatfish									
Flathead sole	2.65	-	-	-	-	-	-	-	2.65
Sand sole	-	0.01	-	-	-	-	1.14	-	1.15
Unspecified	118.52	49.23	11.04	3.10	6.03	1.01	6.03	-	194.96
Total	121.17	49.24	11.04	3.10	6.03	1.01	7.17	-	198.76
Other rockfish									
Bocaccio	1.53	9.29	26.07	28.77	64.43	4.59	1.74	0.09	136.51
Canary rockfish	0.02	155.56	699.38	119.29	241.00	114.93	3.96	10.39	1344.53
Copper rockfish	-	-	-	-	-	-	2.97	-	2.97
Darkblotched rockfish	-	0.36	-	4.81	17.58	9.20	-	14.71	46.66
Dusky rockfish	-	-	-	-	-	-	-	0.04	0.04
Greenstriped rockfish	-	1.58	0.65	-	-	-	-	-	2.23
Harlequin rockfish	-	-	-	-	-	-	-	2.26	2.26
Quillback rockfish	0.13	-	0.35	1.23	0.01	0.32	2.69	1.36	6.09
Redbanded rockfish	-	16.63	9.71	12.02	19.35	7.93	3.16	13.52	82.32
Redstripe rockfish	-	11.78	22.11	20.77	11.50	3.23	5.32	161.32	236.03
Rougheye rockfish	-	0.62	1.32	1.74	6.40	2.17	-	201.63	213.88
Sharpchin rockfish	-	8.95	6.54	0.88	24.92	0.69	-	14.55	56.53
Shortraker rockfish	-	-	-	0.05	3.35	1.42	5.98	19.13	29.93
Shortspine thornyhead	-	0.77	-	0.02	1.00	0.12	3.52	46.46	51.89
Silvergray rockfish	-	85.86	560.19	265.70	376.16	325.08	7.92	146.10	1767.01
Splitnose rockfish	0.51	10.04	21.86	14.48	38.42	7.27	-	0.21	92.79
Widow rockfish	-	12.77	3.01	8.80	5.73	1.25	-	29.46	61.02
Yelloweye rockfish	0.03	-	0.84	-	-	-	-	-	0.87
Yellowmouth rockfish	-	32.60	39.83	411.00	342.17	56.02	-	640.45	1522.07
Yellowtail rockfish	0.09	16.55	36.13	198.16	124.57	10.44	61.39	0.05	447.38
Unspecified	25.10	124.92	187.08	28.53	61.36	8.75	19.16	0.83	455.73
Total	27.41	488.28	1615.07	1116.25	1337.95	553.41	117.81	1302.56	6558.74

Table 4 (cont'd)

Species	Major Area 4B	3C	3D	5A	5B	5C	5D	5E	Total
Miscellaneous species									
American shad	-	0.01	-	-	-	-	-	-	0.01
Octopus	1.42	0.41	0.19	0.24	0.43	1.86	5.75	0.82	11.12
Perch	4.35	-	-	-	-	-	-	-	4.35
Skate	14.22	13.33	1.22	9.74	12.45	17.30	68.70	0.14	137.10
Squid	0.50	-	-	-	-	-	0.05	0.39	0.94
Sturgeon	0.05	0.38	0.02	0.52	0.08	0.05	0.02	-	1.12
Unspecified	-	0.17	-	-	-	0.01	-	-	0.18
Total	20.54	14.30	1.43	10.50	12.96	19.22	74.52	1.35	154.82
Animal food									
Pacific ocean perch	-	-	-	-	-	15.17	-	-	15.17
Other rockfish	-	-	-	-	0.37	2.09	-	-	2.46
Rex sole	-	-	-	-	0.09	-	-	-	0.09
Unspecified	-	-	-	9.67	10.83	10.42	17.71	27.77	76.40
Total	-	-	-	9.67	11.29	27.68	17.71	27.77	94.12
Reduction									
Dover sole	-	-	-	-	-	-	7.58	-	7.58
English sole	-	-	-	-	-	-	0.77	-	0.77
Pacific cod	0.23	-	-	-	-	-	-	-	0.23
Lingcod	-	-	4.49	-	-	-	-	-	4.49
Rockfish	-	3.08	27.61	36.49	16.33	-	-	-	83.51
Rock sole	-	-	-	-	-	-	0.23	-	0.23
Unspecified	-	50.95	60.83	26.93	68.98	2.71	1.96	12.31	224.67
Total	0.23	54.03	92.93	63.42	85.31	2.71	10.54	12.31	321.48

Table 5. British Columbia trawl landings (t) by species and minor area in 1983.

Species	Minor Area						
	1W	2AW	2BW	1E	2AE	4	5U
English sole	-	1.16	-	5.61	-	323.83	63.14
Rock sole	0.27	0.13	-	30.59	3.07	113.21	40.52
Petrale sole	11.64	11.66	-	1.46	-	16.40	6.62
Dover sole	380.62	47.66	4.20	2.86	-	227.20	11.55
Rex sole	11.52	0.04	-	11.46	-	22.18	0.31
Flathead sole	-	-	-	-	-	-	-
Sand sole	-	-	-	-	-	-	1.14
Turbot	1.10	0.72	0.02	5.02	-	78.16	11.07
Starry flounder	0.06	-	-	11.24	-	24.53	-
Other flatfish	-	-	-	-	-	0.42	5.61
Pacific cod	0.03	0.69	-	29.42	15.63	947.78	1051.74
Lingcod	0.41	0.60	0.31	17.29	-	64.20	12.71
Sablefish	41.03	14.64	2.10	2.86	-	4.16	8.31
Pollock	26.39	1.81	0.02	516.79	-	467.34	1.75
Pacific ocean perch	292.19	400.68	434.50	2.88	-	6.45	2.18
Bocaccio	0.09	-	-	0.04	-	0.57	1.13
Canary rockfish	-	10.39	-	-	-	1.43	2.53
Redstripe rockfish	18.53	140.97	1.82	5.32	-	-	-
Rougheye rockfish	127.46	73.59	0.58	-	-	-	-
Silvergray rockfish	16.32	121.21	8.57	4.41	-	1.85	1.66
Yellowmouth rockfish	52.24	541.05	47.16	-	-	-	-
Yellowtail rockfish	0.01	0.04	-	26.03	-	31.99	3.37
Widow rockfish	0.87	25.78	2.81	-	-	-	-
Other rockfish	60.89	38.38	13.80	16.48	-	12.57	8.43
Hake	-	-	-	-	-	-	-
Octopus	0.79	0.03	-	0.42	-	1.49	3.84
Perch	-	-	-	-	-	-	-
Skate	0.04	0.10	-	2.86	1.48	46.52	17.84
Squid	0.38	0.01	-	0.02	-	0.02	0.01
Sturgeon	-	-	-	-	-	-	0.02
Misc. species	-	-	-	-	-	-	-
Dogfish	-	-	-	-	3.40	6.14	7.13
Reduction	4.53	7.78	-	1.56	-	8.57	0.41
Animal food	15.45	4.41	7.91	5.16	-	12.16	0.39
Total	1052.86	1443.53	523.80	699.78	23.58	2419.17	1263.41
Crab	-	-	-	-	-	-	-
Dumped fish	-	-	-	30.68	-	-	-
Discards	0.25	61.69	-	24.56	0.07	999.85	179.76

Table 5 (cont'd)

Species	Minor Area						
	2BE	3L	6	8	9	11	25
English sole	28.40	5.26	2.60	8.57	-	9.89	1.98
Rock sole	59.25	0.46	0.17	205.91	0.04	124.12	1.84
Petrale sole	5.50	0.80	4.20	100.27	0.15	60.22	9.38
Dover sole	10.76	0.02	0.50	15.58	-	26.92	19.98
Rex sole	0.41	-	-	2.17	-	-	-
Flathead sole	-	-	-	-	-	-	-
Sand sole	-	-	-	-	-	-	-
Turbot	9.33	-	-	78.29	-	81.08	-
Starry flounder	0.02	-	-	0.02	-	0.04	-
Other flatfish	1.01	-	-	6.03	-	3.10	1.45
Pacific cod	653.25	4.42	11.82	102.15	-	81.28	15.52
Lingcod	45.54	1.04	2.71	772.37	0.24	572.60	148.50
Sablefish	3.60	-	-	5.94	-	33.82	22.63
Pollock	6.18	-	-	9.54	-	11.29	0.55
Pacific ocean perch	784.51	8.94	0.43	2358.13	-	526.56	377.55
Bocaccio	1.89	0.41	2.29	64.43	-	28.77	2.58
Canary rockfish	95.90	10.69	8.34	241.00	-	119.29	360.64
Redstripe rockfish	2.77	0.46	-	11.50	-	20.77	18.30
Rougheye rockfish	2.17	-	-	6.40	-	1.74	1.32
Silvergray rockfish	264.16	45.44	15.48	376.16	-	265.70	341.67
Yellowmouth rockfish	55.50	0.52	-	342.17	-	411.00	19.43
Yellowtail rockfish	9.53	0.91	-	124.57	0.39	197.77	8.32
Widow rockfish	1.25	-	-	5.73	-	8.80	1.88
Other rockfish	35.70	-	-	165.99	-	62.02	91.32
Hake	-	-	-	-	-	-	-
Octopus	1.83	-	0.03	0.43	-	0.24	-
Perch	-	-	-	-	-	-	-
Skate	16.20	0.40	0.70	12.45	-	9.74	0.48
Squid	-	-	-	-	-	-	-
Sturgeon	0.05	-	-	0.08	-	0.52	-
Misc. species	0.01	-	-	-	-	-	-
Dogfish	2.60	-	-	8.50	-	-	54.25
Reduction	2.10	0.61	-	85.31	-	63.42	52.12
Animal food	27.68	-	-	11.29	-	9.67	-
Total	2127.10	80.38	49.27	5120.98	0.82	2730.37	1551.69
Crab	-	-	-	-	-	0.04	-
Dumped fish	3.15	-	-	1.36	-	-	-
Discards	195.95	0.58	-	249.65	0.91	154.94	30.39

Table 5 (cont'd)

Species	Minor Area					
	26	27	21	23	24	12
English sole	1.45	0.36	3.90	37.69	2.74	1.53
Rock sole	0.66	28.85	5.55	40.25	8.87	0.58
Petrale sole	2.89	17.31	19.75	101.00	63.25	-
Dover sole	1.76	8.68	6.51	18.13	42.45	-
Rex sole	-	-	-	0.72	0.01	-
Flathead sole	-	-	-	-	-	2.65
Sand sole	-	-	-	0.01	-	-
Turbot	-	-	5.21	36.87	3.46	0.14
Starry flounder	-	0.01	-	0.57	0.88	10.58
Other flatfish	1.13	8.46	8.91	29.41	10.91	2.29
Pacific cod	0.41	4.53	288.60	348.06	37.21	6.08
Lingcod	19.63	274.27	99.72	785.74	85.26	2.27
Sablefish	4.12	4.79	16.25	90.96	8.37	0.02
Pollock	-	-	0.09	3.17	0.02	-
Pacific ocean perch	37.83	47.95	0.64	175.79	197.54	-
Bocaccio	6.51	16.98	-	0.38	8.91	1.52
Canary rockfish	56.44	282.30	1.39	21.86	132.31	-
Redstripe rockfish	1.30	2.51	-	0.79	10.99	-
Rougheye rockfish	-	-	-	-	0.62	-
Silvergray rockfish	75.45	143.07	0.68	18.98	66.20	-
Yellowmouth rockfish	4.65	15.75	-	8.37	24.23	-
Yellowtail rockfish	5.27	22.54	1.62	14.31	0.62	-
Widow rockfish	-	1.13	-	11.82	0.95	-
Other rockfish	60.74	74.97	5.48	51.59	106.18	1.21
Hake	-	-	-	-	-	-
Octopus	-	0.19	0.09	0.28	0.04	-
Perch	-	-	-	-	-	-
Skate	-	0.74	3.32	9.10	0.91	0.43
Squid	-	-	-	-	-	-
Sturgeon	-	0.02	0.06	0.24	0.08	-
Misc. species	-	-	-	0.01	0.17	-
Dogfish	-	-	20.95	422.51	7.03	-
Reduction	12.81	28.00	-	21.61	32.42	-
Animal food	-	-	-	-	-	-
Total	293.05	983.41	488.72	2250.22	852.63	29.30
Crab	-	-	0.09	0.01	-	-
Dumped fish	-	-	-	0.19	-	-
Discards	4.00	27.35	78.14	262.41	61.01	-

Table 5 (cont'd)

Species	Minor Area				
	13	14	16	17	18
English sole	0.25	12.11	-	0.41	3.15
Rock sole	0.36	0.87	-	-	0.48
Petrale sole	-	-	-	-	0.01
Dover sole	-	-	-	-	0.02
Rex sole	-	-	-	-	-
Flathead sole	-	-	-	-	-
Sand sole	-	-	-	-	-
Turbot	-	-	-	-	0.30
Starry flounder	5.08	8.99	-	0.96	2.51
Other flatfish	-	4.37	-	17.77	36.46
Pacific cod	15.47	31.52	-	24.76	109.60
Lingcod	-	1.53	-	0.45	7.68
Sablefish	-	0.06	-	0.07	0.62
Pollock	-	-	-	0.18	9.41
Pacific ocean perch	-	-	-	-	-
Bocaccio	-	0.01	-	-	-
Canary rockfish	-	0.01	-	-	-
Redstripe rockfish	-	-	-	-	-
Rougheye rockfish	-	-	-	-	-
Silvergray rockfish	-	-	-	-	-
Yellowmouth rockfish	-	-	-	-	-
Yellowtail rockfish	-	0.04	-	-	-
Widow rockfish	-	-	-	-	-
Other rockfish	0.09	0.83	-	3.46	11.14
Hake	-	52.99	816.47	2239.62	1.29
Octopus	0.02	-	-	0.03	0.44
Perch	-	1.18	-	2.32	0.85
Skate	0.01	0.77	-	0.41	4.83
Squid	-	0.04	-	-	0.46
Sturgeon	0.01	-	-	-	-
Misc. species	-	-	-	-	-
Dogfish	51.84	22.91	-	34.92	278.72
Reduction	-	-	-	-	-
Animal food	-	-	-	-	-
Total	73.13	138.23	816.47	2325.36	467.97
Crab	-	-	-	0.01	0.45
Dumped fish	-	-	-	-	0.64
Discards	-	2.90	-	0.48	10.45

Table 5 (cont'd)

Species	Minor Area			
	19	20	29	Total
English sole	1.37	15.47	0.67	531.54
Rock sole	0.77	0.73	0.58	668.13
Petrale sole	3.62	3.05	-	439.18
Dover sole	0.02	45.93	-	871.35
Rex sole	0.03	0.13	-	48.98
Flathead sole	-	-	-	2.65
Sand sole	-	-	-	1.15
Turbot	8.73	4.01	-	323.51
Starry flounder	0.31	0.02	-	65.82
Other flatfish	13.63	44.00	-	194.96
Pacific cod	622.19	92.65	1.25	4496.06
Lingcod	64.30	8.65	0.37	2988.39
Sablefish	7.65	2.03	-	274.03
Pollock	1.96	3.16	10.59	1070.24
Pacific ocean perch	-	-	-	5654.75
Bocaccio	-	-	-	136.51
Canary rockfish	0.01	-	-	1344.53
Redstripe rockfish	-	-	-	236.03
Rougheye rockfish	-	-	-	213.88
Silvergray rockfish	-	-	-	1767.01
Yellowmouth rockfish	-	-	-	1522.07
Yellowtail rockfish	0.01	-	0.04	447.38
Widow rockfish	-	-	-	61.02
Other rockfish	4.20	4.81	0.03	830.31
Hake	-	-	11.18	3121.55
Octopus	0.62	0.30	0.01	11.12
Perch	-	-	-	4.35
Skate	3.18	4.43	0.18	137.10
Squid	-	-	-	0.94
Sturgeon	0.04	-	-	1.12
Misc. species	-	-	-	0.19
Dogfish	35.05	0.38	10.41	966.74
Reduction	0.23	-	-	321.48
Animal food	-	-	-	94.12
Total	767.90	229.75	35.31	28,848.19
Crab	0.10	0.17	-	0.87
Dumped fish	3.23	0.48	-	39.73
Discards	7.03	2.72	4.17	2359.26

TABLES OF MONTHLY CATCH (t) BY MAJOR AREA.

TABLE 6. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH -INTERNATIONAL AREA 4B - STRAIT OF GEORGIA.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.	8.04	7.07	4.22	.01	.39	2.28	.97	.63	1.97	5.46	3.14	.78	34.96
ROCK S.	1.20	1.66	.39					.37			.32	.43	4.37
PETRALE S.	.24	.59	.38	.36	.26	.08		.27	.01	4.48		.01	6.68
DOVER S.		.05	.02	.26	2.34	10.17	9.46	4.72	12.59	4.59	1.77		45.97
REX SOLE	.13		.03										.16
STARRY FLDR	7.29	3.79	1.69	.32		2.44				1.61	4.35	6.96	28.45
TURBOT	.28	.23	1.20	.56	.59	1.65	.94	.09	2.90	3.98	.76		13.18
OTHER FLAT.	5.78	11.63	11.25	12.57	10.19	6.35	3.68	5.95	5.20	22.15	14.27	12.15	121.17
PACIFIC COD	126.00	94.64	79.15	44.45	13.10	16.99	36.93	69.78	91.25	119.35	121.56	90.32	903.52
LINGCOD	17.74	16.41	.01	.86	1.14	3.06	2.32	5.52	15.87	18.01	4.07	.24	85.25
SABLEFISH	.04	.07	.03	.03	.02	1.23	.70	.32	.16	7.37	.45	.03	10.45
POLLOCK	2.10	.76	19.30	.08	.03	.11	.12	.04	.36	2.17	.09	.14	25.30
HAKE	.07	42.55	.15	1126.93	1726.24	225.19	.07	.06	.08	.07	.05	.09	3121.55
OCEAN PERCH													
OTHER ROCKF.	1.62	2.20	1.91	2.48	2.67	1.65	.81	.32	4.02	5.69	1.70	2.34	27.41
MISC. SP.	1.99	1.55	2.69	4.28	1.29	.81	.76	.37	1.15	2.19	2.15	1.31	20.54
DOGFISH		26.22	54.40	16.78	11.39	82.53	28.31	25.51	15.88	64.66	108.55		434.23
ANIMAL FOOD													
REDUCTION										.23			.23
TOTAL	172.52	209.42	176.82	1209.97	1769.65	354.54	85.07	113.95	151.44	262.01	263.23	114.80	4883.42

TABLE 7. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH - INTERNATIONAL AREA 3C - SOUTHWEST COAST VANCOUVER IS.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.		1.37	2.48	6.10	4.72	6.03	5.00	3.40	7.66	7.57			44.33
ROCK S.		6.21	5.49	6.12	4.39	13.60	9.08	6.86	.65	2.27			54.67
PETRALE S.	1.58	.21	11.61	41.29	15.26	25.46	24.15	14.48	28.12	21.72	.12		184.00
DOVER S.	.05		2.80	36.51	6.34	14.49	1.62	3.16	1.48	.64			67.09
REX SOLE	.25	.47		.01									.73
STARRY FLDR		.33			.88							.24	1.45
TURBOT		.04		.20	2.17	7.05	8.72	24.99	1.64	.73			45.54
OTHER FLAT.		1.88	1.23	3.65	9.58	15.96	.53	4.19	6.39	4.08	.71	1.04	49.24
PACIFIC COD	1.42	48.87	63.30	57.53	261.47	97.64	26.22	16.45	16.75	48.26	26.93	9.03	673.87
LINGCOD	.08	6.92		4.60	65.84	354.27	219.63	188.21	95.71	34.96	.50		970.72
SABLEFISH	.01	.02	.49	1.60	6.86	7.72	16.57	16.76	33.59	31.96			115.58
POLLOCK		.05		.07	.19	2.80	.03	.14					3.28
HAKE													
OCEAN PERCH	.66	3.83	10.50	92.92	25.96	49.56			166.51	24.03			373.97
OTHER ROCKF.	.66	1.60	.90	61.97	54.46	230.59	31.68	5.89	38.41	50.33	11.54	.25	488.28
MISC. SP.	.04	.48	.88	1.43	1.19	4.07	4.32	.94	.60	.20	.08	.07	14.30
DOGFISH		64.28	115.91	39.89	71.50	35.81	33.20		16.95	72.95			450.49
ANIMAL FOOD													
REDUCTION				5.79	.48	19.68	8.18		15.78	4.12			54.03
TOTAL	4.75	136.56	215.59	359.68	531.29	884.73	388.93	285.47	430.24	303.82	39.88	10.63	3591.57

TABLE 8. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH - INTERNATIONAL AREA 3D - NORTHWEST COAST VANCOUVER IS.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.	.18	.04		.11	1.30	.26	.99	.05	.65	.21			3.79
ROCK S.				.02	3.94	11.32	9.65	1.15	4.71	.56			31.35
PETRALE S.				1.14	4.42	6.94	3.69	1.30	10.14	1.60	.13	.22	29.58
DOVER S.				11.70	2.34	1.06	5.88		4.36	3.93	.69	.46	30.42
REX SOLE													
STARRY FLDR							.01						.01
TURBOT													
OTHER FLAT.					.98	2.82	3.73	2.05	1.46				11.04
PACIFIC COD	.01	.04	.06	1.67	8.33	3.85	3.45	.19	1.26	1.51	.09		20.46
LINGCOD				3.95	74.35	130.66	104.55	24.52	82.89	17.04	4.44		442.40
SABLEFISH	.01			.66	2.58	8.56	3.23	.05	4.62	11.74	.09		31.54
POLLOCK				.13	.33	.08	.01						.55
HAKE													
OCEAN PERCH	7.45	1.15		68.82	18.67	115.14	18.53		18.39	186.86	4.89	23.43	463.33
OTHER ROCKF.	18.68	3.69		23.80	269.95	463.74	195.52	51.96	263.57	237.44	66.97	19.75	1615.07
MISC. SP.					.03	.43	.63	.01	.32		.01		1.43
DOGFISH				38.10	16.15								54.25
ANIMAL FOOD													
REDUCTION	1.67			6.66	14.13	12.27	3.65		28.12	19.55	6.88		92.93
TOTAL	28.00	4.92	.06	156.76	417.50	757.13	353.52	81.28	420.49	480.44	84.19	43.86	2828.15

TABLE 9. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH -INTERNATIONAL AREA 5A - SOUTH QUEEN CHARLOTTE SOUND.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.		.03		.15	.74	.99	4.37	.68	1.07	.98	.67	.21	9.89
ROCK S.			.02	.30	33.28	28.55	24.85	9.92	23.11	3.52	.60	.01	124.16
PETRALE S.		1.05	1.75	.54	1.61	8.77	15.02	6.75	6.36	11.04	7.19	.29	60.37
DOVER S.		1.45	.10	.08	4.38	.29	17.57	1.56	1.49				26.92
REX SOLE													
STARRY FLDR								.03	.01				.04
TURBOT						13.82	37.93	6.97	18.04	4.32			81.08
OTHER FLAT.			.98		.43		1.16					.53	3.10
PACIFIC COD		.03	1.38	.95	12.93	22.18	14.01	7.51	5.94	11.99	2.21	2.15	81.28
LINGCOD		2.45	24.24	.03	26.79	170.57	168.65	59.97	59.11	26.41	33.75	.87	572.84
SABLEFISH		.29		11.38			.46	1.61	.67	19.35	.01	.05	33.82
POLLOCK			.04		.31	1.62	.69		7.21			1.42	11.29
HAKE													
OCEAN PERCH		114.46	176.18	172.56	12.65	9.40	.64	37.21	.73	2.73			526.56
OTHER ROCKF.		98.41	33.62	45.98	361.44	135.92	46.75	69.59	57.51	116.67	105.47	44.89	1116.25
MISC. SP.			.20	.09	1.38	2.74	3.47	.53	.77	.40	.92		10.50
DOGFISH													
ANIMAL FOOD				1.13				8.51	.03				9.67
REDUCTION		23.53	7.30	2.72	16.09	4.15	4.45	.22	.24	2.35	.35	2.02	63.42
TOTAL		241.70	245.81	235.91	472.03	399.00	340.02	211.06	182.29	199.76	151.17	52.44	2731.19

TABLE 10. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH - INTERNATIONAL AREA 5B - NORTH QUEEN CHARLOTTE SOUND.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.		.06	.36	.45	.42	.79	1.17	.97	1.39	2.74	.22		8.57
ROCK S.			.91	.03	6.92	14.58	74.54	65.62	31.96	11.13	.22		205.91
PETRALE S.		3.53	33.52	23.00	12.02	6.17	4.09	4.35	10.89	2.23	.47		100.27
DOVER S.		.22	.74	2.01	4.52	4.41	.44	2.65	.37		.22		15.58
REX SOLE					2.17								2.17
STARRY FLDR						.02							.02
TURBOT					30.19	31.48	2.60	10.47	3.55				78.29
OTHER FLAT.					.33	.92				1.73	3.05		6.03
PACIFIC COD		.44	.15	1.56	24.12	29.26	12.63	7.78	6.15	17.02	3.04		102.15
LINGCOD			.22	2.30	137.21	261.43	143.50	129.96	56.03	38.58	3.14		772.37
SABLEFISH		.03	.27	.96	1.36	.05	1.39	1.80	.04	.04			5.94
POLLOCK			.15	3.98	.19	1.82	1.37	1.65	.16	.22			9.54
HAKE													
OCEAN PERCH		226.75	375.10	258.26	913.70	370.77	84.09	99.37	30.09				2358.13
OTHER ROCKF.		62.69	67.41	203.23	301.27	210.15	85.16	149.55	105.06	101.44	44.14	7.85	1337.95
MISC. SP.			.16	.03	1.40	7.81	1.98	1.46	.12				12.96
DOGFISH					8.50								8.50
ANIMAL FOOD				.28	5.03	3.76		2.22					11.29
REDUCTION		3.19	29.59	15.64	32.30	1.75	2.76		.08				85.31
TOTAL		296.91	508.58	511.73	1481.65	945.17	415.72	477.85	245.89	175.13	54.50	7.85	5120.98

TABLE 11. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH - INTERNATIONAL AREA 5C - SOUTH HECATE STRAIT.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.	.06	6.78	.32	3.23	3.70	.89	.45	.83	.13	12.39	7.48		36.26
ROCK S.	.11	1.96	3.03	9.89	18.53	3.19	5.45	4.21	9.51	1.20	2.80		59.88
PETRALE S.		.05			.29	4.80	1.13		2.47	.22	1.54		10.50
DOVER S.				.04	1.26	1.13	.44	6.84	1.57				11.28
REX SOLE				.05	.12		.24						.41
STARRY FLDR							.02						.02
TURBOT			.01	.40	.26	8.42					.24		9.33
OTHER FLAT.	.05			.96									1.01
PACIFIC COD	60.39	92.64	66.58	187.37	144.38	83.90	16.39	.21	6.31	1.72	9.60		669.49
LINGCOD	.15	1.41	.10	1.59	9.88	15.45	13.99	.87	1.05	1.43	3.37		49.29
SABLEFISH				.01	.14	.08		3.36			.01		3.60
POLLOCK				6.11	.04	.03							6.18
HAKE													
OCEAN PERCH					273.25	238.48	.77	170.19	111.19				793.88
OTHER ROCKF.		.92		3.00	176.30	36.44	20.93	71.27	83.05	75.56	85.94		553.41
MISC. SP.	.71	.89	.31	2.48	8.38	2.12	1.94	2.37	.01	.01			19.22
DOGFISH					2.10			.50					2.60
ANIMAL FOOD		.34		.34	2.43	6.14	.16	18.27					27.68
REDUCTION		.52			.16	1.05		.80		.09	.09		2.71
TOTAL	61.47	105.51	70.35	215.47	641.22	402.12	61.91	279.72	215.29	92.62	111.07		2256.75

TABLE 12. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH - INTERNATIONAL AREA 5D - NORTH HECATE STRAIT.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.	13.58	38.85	16.38	66.18	73.09	70.72	34.21	10.60	2.82	9.14	30.74	26.27	392.58
ROCK S.	5.22	6.80	18.55	29.19	49.81	20.94	9.38	8.54	.50	20.52	9.30	8.64	187.39
PETRALE S.	.28	.72	.75	14.60	.26	.46	1.20	.06	.13	4.53	.83	.66	24.48
DOVER S.	5.67	.03		11.55	.18	47.99	27.44	39.98	66.10	38.49	2.67	1.51	241.61
REX SOLE	.99	.07	2.54	7.85	1.88	1.85	2.09	4.21	5.92	1.84	2.62	2.09	33.95
STARRY FLDR	7.83	3.52	.16	2.31	13.38	1.68	.78	.46	.02	.69	2.72	2.22	35.77
TURBOT	2.49	2.13	.12	5.20	13.26	18.43	5.02	12.79	14.74	14.02	2.27	3.78	94.25
OTHER FLAT.		.42		.42	6.33								7.17
PACIFIC COD	18.20	340.97	376.49	543.53	264.33	215.20	203.82	11.24	14.97	12.58	14.67	28.57	2044.57
LINGCOD	1.80	3.10	2.34	5.94	18.68	24.04	15.41	3.37	1.84	2.30	9.37	6.01	94.20
SABLEFISH	.74	.11		.51	.07	.60	.33	1.95	1.49	9.52	.01		15.33
POLLOCK	4.19	28.11	11.42	14.75	11.24	6.45	6.44	2.30	40.34	193.90	209.06	457.68	985.88
HAKE													
OCEAN PERCH		.01				6.31	.18		2.29	.06	2.66		11.51
OTHER ROCKF.	.57	17.47	13.03	5.72	8.92	7.49	3.37	2.90	13.22	16.98	18.68	9.46	117.81
MISC. SP.	4.66	9.90	7.98	16.06	14.36	5.07	4.66	.51	.95	2.05	3.71	4.61	74.52
DOGFISH					3.40	4.22	1.92			7.13			16.67
ANIMAL FOOD	.07	1.09	.04	.30	.87	2.33	.56	1.71	.30	.43	3.86	6.15	17.71
REDUCTION		.12		.16	.13			8.57		1.56			10.54
TOTAL	66.29	453.42	449.80	724.27	480.19	433.78	316.81	109.19	165.63	335.74	313.17	557.65	4405.94

TABLE 13. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH - INTERNATIONAL AREA 5E - WEST COAST QUEEN CHARLOTTE IS.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.		.02	1.14										1.16
ROCK S.						.13				.27			.40
PETRALE S.	.76	1.98	4.10	14.29	1.67	.01				.44	.05		23.30
DOVER S.	1.07	56.69	120.79	101.08	101.48	4.22			.02	25.72	21.41		432.48
REX SOLE	.07	.11	.01		6.32	1.24				2.99	.82		11.56
STARRY FLDR										.06			.06
TURBOT		.70	.08	.44					.02	.60			1.84
OTHER FLAT.													
PACIFIC COD				.01		.67	.03	.01					.72
LINGCOD	.06	.01		.22	.28	.47		.14			.14		1.32
SABLEFISH	.40	5.10	4.87	10.25	10.90	3.80	1.29	2.31	2.40	9.91	6.54		57.77
POLLOCK		1.81		.02						2.69	23.70		28.22
HAKE													
OCEAN PERCH	101.29	125.57	68.59	318.79	201.53	78.34	107.00	56.76	22.79	44.01	2.70		1127.37
OTHER ROCKF.	128.54	341.41	63.33	145.47	62.98	48.46	32.34	112.34	232.54	125.72	9.43		1302.56
MISC. SP.		.03	.03	.08	.05	.05				.78	.33		1.35
DOGFISH													
ANIMAL FOOD	1.62	1.00	.64	15.86	2.49	.99	3.07	.33	1.09	.34	.34		27.77
REDUCTION		8.17		4.14									12.31
TOTAL	233.81	542.60	263.58	610.65	387.70	138.38	143.73	171.89	258.86	213.53	65.46		3030.19

TABLES OF MONTHLY CATCH (t) BY MINOR AREA.

TABLE 14. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 1W.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.										.27			.27
ROCK SOLE											.05		11.64
PETRALE S.	.50	1.92	3.88	3.18	1.67					.44			380.62
DOVER SOLE	.92	12.66	117.08	97.22	101.39	4.22				25.72	21.41		11.52
REX SOLE	.03	.11	.01		6.32	1.24				2.99	.82		
BUTTER SOLE													
FLATHEAD S.										.60			1.10
SAND SOLE			.08	.42						.06			.06
TURBOT													
STAR.FLDR													.03
OTHER FLAT.							.03				.14		.41
PACIFIC COD				.09		.18				9.00	6.54		41.03
LINGCOD				5.22	10.67	2.55		.05		2.69	23.70		26.39
SABLEFISH	.32	2.16	4.52										
POLLOCK										17.68	2.70		292.19
							44.45	.46	3.14		.09		.09
OCEAN PERCH	30.19	21.72	19.63	4.66	109.68	37.88							
BOCACCIO							.53			2.27			18.53
CANARY RF					2.70					7.18	2.71		127.46
REDSTR. RF		13.03			.21	3.86					.27		16.32
ROUGHEYE RF	17.41	43.44	50.75	1.90	3.42		.86	.73			2.57		52.24
SIL'GRAY RF	4.35	5.70		.99	13.29		.70	.92					.01
YEL'MOUTH R	4.35	30.41					.01						
YEL'TAIL RF													.87
							.87						60.89
WIDOW RF	4.44	8.55	3.49	4.69	19.10	10.29	2.48			5.18	2.67		
OTHER RF										.75			.79
HAKE				.04									.04
OCTOPUS											.33		.38
PERCH					.04								
SKATE			.03	.01	.01								
SQUID													
STURGEON													4.53
MISC. SP.											.34		15.45
DOGFISH		4.53											
REDUCTION			.64	10.33	.55	.76	1.41						1062.86
ANIMALFOOD	1.42							2.16	3.14	74.83	64.34		
TOTAL	63.93	144.23	200.11	128.75	269.05	60.98	51.34						.19
CRAB							.19						
DUMPED FISH													
DISCARDS													

TABLE 15. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 2AW.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.		.02	1.14			.13							1.16
ROCK SOLE						.01			.02				.13
PETRALE S.	.26	.06	.22	11.11									11.66
DOVER SOLE	.15	44.03		3.46									47.66
REX SOLE	.04												.04
BUTTER SOLE													
FLATHEAD S.									.02				.72
SAND SOLE		.70											
TURBOT													.69
STAR.FLDR								.01					.60
OTHER FLAT.				.01		.67							14.64
PACIFIC COD				.02	.08	.29		.14					1.81
LINGCOD	.06	.01		3.52	.02	1.25	1.29	2.26	2.40	.91			400.68
SABLEFISH	.05	2.94											
POLLOCK		1.81											10.39
OCEAN PERCH	36.83	56.86	18.40	95.74	13.38	40.46	62.54	53.61	19.65	3.21			140.97
BOCACCIO									6.82				73.59
CANARY RF				.77		2.80		15.72	47.01	8.49			121.21
REDSTR. RF		40.19		29.33	.23		6.55	1.68	4.11		1.09		541.05
ROUGHEYE RF	25.02	21.42	.04	14.10	.39	.28	1.69	11.03	26.49	14.62			.04
SIL'GRAY RF	14.58	41.72	.33	7.73	1.93		16.81	71.14	147.19	66.47	.04		25.78
YEL'MOUTH R	40.91	106.11	4.95	62.85	5.22	19.40							38.38
YEL'TAIL RF						7.06		10.79	.81				
WIDOW RF		7.12				4.77	1.83	.13	.11	.70			.03
OTHER RF	10.58	6.93	.66	11.09	1.58								.10
HAKE				.03						.03			.01
OCTOPUS						.05							
PERCH		.02											
SKATE		.01											
SQUID													7.78
STURGEON													4.41
MISC. SP.													
DOGFISH		3.64		4.14		.23	1.66	.33	1.09	.34			1443.53
REDUCTION													
ANIMALFOOD	.07	.69											
TOTAL	128.55	334.28	25.74	243.90	22.83	77.40	92.37	166.84	255.72	94.77	1.13		61.69
CRAB							1.82		31.75				
DUMPED FISH													
DISCARDS	5.44	22.68											

TABLE 16. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 2BW.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.													
ROCK SOLE													
PETRALE S.													
DOVER SOLE			3.71	.40	.09								4.20
REX SOLE													
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT				.02									.02
STAR.FLDR													
OTHER FLAT.													
PACIFIC COD													
LINGCOD				.11	.20								.31
SABLEFISH	.03		.35	1.51	.21								2.10
POLLOCK				.02									.02
OCEAN PERCH	34.28	46.99	30.56	218.39	78.47			2.69		23.12			434.50
BOCACCIO													
CANARY RF													
REDSTR. RF				.22	1.60								1.82
ROUGHEYE RF				.58									.58
SIL'GRAY RF	.21	7.06		.97	.33								8.57
YEL'MOUTH R	3.85	9.73		4.31	8.46					20.81			47.16
YEL'TAIL RF													
WIDOW RF	2.61												2.81
OTHER RF	.02		3.11	5.96	4.52			.19					13.80
HAKE													
OCTOPUS													
PERCH													
SKATE													
SQUID													
STURGEON													
MISC. SP.													
DOGFISH													
REDUCTION													
ANIMALFOOD	.13	.31		5.53	1.94								7.91
TOTAL	41.33	64.09	37.73	238.02	95.82			2.88		43.93			523.80
CRAB													
DUMPED FISH													
DISCARDS													

TABLE 17. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 1E.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.	.01	1.96			2.55		.77				.32		5.61
ROCK SOLE	4.91	3.60	2.78	12.41	.42	.68	.69			3.67	1.43		30.59
PETRALE S.		.63	.45		.14		.06		.13	.05			1.46
DOVER SOLE						1.51					1.35		2.86
REX SOLE			2.46	7.70							1.30		11.46
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT	1.21	.44	.12	1.85		.23				.53	.61	.03	5.02
STAR.FLDR	7.69	2.09	.16	.13			.51			.66			11.24
OTHER FLAT.													
PACIFIC COD	.23	11.41	1.41	7.33	2.79	.46	2.70		1.81	.78	.50		29.42
LINGCOD		1.08	.02		7.64	8.05				.50			17.29
SABLEFISH						.09	.17			2.60			2.86
POLLOCK	.48	1.28							34.11	189.23	177.25	114.44	516.79
OCEAN PERCH							.16			.06	2.66		2.88
BOCACCIO											.04		.04
CANARY RF													
REDSTR. RF											5.32		5.32
ROUGHEYE RF													
SIL'GRAY RF										1.64	2.77		4.41
YEL'MOUTH R													
YEL'TAIL RF		8.10			.37				6.30	8.66	1.89	.71	26.03
WIDOW RF													
OTHER RF		.16	7.23						2.40	.71	5.98		16.48
HAKE													
OCTOPUS	.02	.03									.37		.42
PERCH													
SKATE		1.42	.22	.84	.36					.02			2.86
SQUID				.02									.02
STURGEON													
MISC. SP.													
DOGFISH													
REDUCTION										1.56			1.56
ANIMALFOOD		.66								.34	3.39	.77	5.16
TOTAL	14.55	32.86	14.85	30.28	14.27	11.02	5.06		44.75	211.01	205.18	115.95	699.78
CRAB													
DUMPED FISH										30.68			30.68
DISCARDS	.07				7.71		.45			2.72	13.61		24.56

TABLE 18. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 2AE.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.													
ROCK SOLE					3.07								3.07
PETRALE S.													
DOVER SOLE													
REX SOLE													
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT													
STAR.FLDR													
OTHER FLAT.													
PACIFIC COD				7.25	8.38								15.63
LINGCOD													
SABLEFISH													
POLLOCK													
OCEAN PERCH													
BOCACCIO													
CANARY RF													
REDSTR. RF													
ROUGHEYE RF													
SIL'GRAY RF													
YEL'MOUTH R													
YEL'TAIL RF													
WIDOW RF													
OTHER RF													
HAKE													
OCTOPUS													
PERCH													
SKATE					1.48								1.48
SQUID													
STURGEON													
MISC. SP.													
DOGFISH					3.40								3.40
REDUCTION													
ANIMALFOOD													
TOTAL				7.25	16.33								23.58
CRAB													
DUMPED FISH													
DISCARDS				.07									.07

TABLE 19. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 4.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.	11.11	28.84	8.53	52.68	64.05	70.06	33.44	9.52	2.00	4.87	18.40	20.33	323.83
ROCK SOLE	.20	2.36	7.60	11.51	41.07	15.79	8.69	8.54	.50	1.63	6.68	8.64	113.21
PETRALE S.	.20	.06	.10	14.46	.06	.18	.28	.06		.21	.13	.66	16.40
DOVER SOLE	5.67	.02		11.54	.16	42.47	26.35	36.68	65.55	36.42	.83	1.51	227.20
REX SOLE	.98	.07		.10	1.88	1.85	2.09	4.21	5.92	1.82	1.32	1.94	22.18
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT	1.24	1.69		3.35	13.03	18.15	5.02	12.79	14.74	2.74	1.66	3.75	78.16
STAR.FLDR	.14	1.43		2.18	13.38	1.68	.27	.46	.02	.03	2.72	2.22	24.53
OTHER FLAT.				.42									.42
PACIFIC COD	16.15	54.84	33.18	211.97	142.83	214.70	201.12	11.24	13.14	9.26	11.80	27.55	947.78
LINGCOD	1.08	.86	.32	2.79	7.72	15.94	15.41	3.37	1.69	1.74	7.63	5.65	64.20
SABLEFISH	.74				.07	.51	.16	.28	1.49	.91			4.16
POLLOCK	3.69	26.45	11.21	14.59	11.13	6.45	6.17	2.00	6.17	4.43	31.81	343.24	467.34
OCEAN PERCH						6.31	.02		.12				6.45
BOCACCIO	.01							.45		.11			.57
CANARY RF					.94			.09		.35		.05	1.43
REDSTR. RF													
ROUGHEYE RF													
SIL'GRAY RF		.14			.47		.04	.18	.44	.35	.23		1.85
YEL'MOUTH R													
YEL'TAIL RF		7.22		.72	4.50	5.27	1.88	.91	.89	2.33	2.05	6.22	31.99
WIDOW RF													
OTHER RF	.37	.14	.01	.98	.86	2.13	1.45	.53	3.19	1.15		1.76	12.57
HAKE													
OCTOPUS	.05	.29	.15	.38	.06	.08	.04				.09	.35	1.49
PERCH													
SKATE	4.44	3.87	.57	9.16	9.72	4.99	4.62	.51	.95	1.06	2.41	4.22	46.52
SQUID					.02								.02
STURGEON													
MISC. SP.													
DOGFISH						4.22	1.92						6.14
REDUCTION								8.57					8.57
ANIMALFOOD	.07	.08		.30	.87	2.33	.56	1.71	.30	.09	.47	5.38	12.16
TOTAL	46.14	128.36	61.67	337.13	312.82	413.11	309.53	102.10	117.11	69.50	88.23	433.47	2419.17
CRAB													
DUMPED FISH													
DISCARDS	27.26	28.44		59.87	100.70	220.99	2.95	45.81	139.48	69.85	243.72	60.78	999.85

TABLE 20. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 5U.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.	2.46	8.05	7.85	13.50	6.49	.66		1.08	.82	4.27	12.02	5.94	63.14
ROCK SOLE	.12	.84	8.17	5.27	5.25	4.46				15.22	1.19		40.52
PETRALE S.	.08	.03	.20	.14	.06	.28	.86			4.27	.70		6.62
DOVER SOLE		.01		.01	.02	4.01	1.09	3.30	.55	2.07	.49		11.55
REX SOLE	.01		.08	.05						.02		.15	.31
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE					1.14								1.14
TURBOT	.04				.23	.06				10.74			11.07
STAR.FLDR													
OTHER FLAT.		.42			5.19								5.61
PACIFIC COD	1.82	274.72	341.90	316.98	110.33	.04			.02	2.54	2.37	1.02	1051.74
LINGCOD	.72	1.16	2.00	3.15	3.32	.05			.15	.06	1.74	.36	12.71
SABLEFISH		.11		.51				1.67		6.01	.01		8.31
POLLOCK	.02	.38	.21	.16	.11		.27	.30	.06	.24			1.75
OCEAN PERCH		.01							2.17				2.18
BOCACCIO		.08		.04	.44						.33	.24	1.13
CANARY RF		.04		1.65						.84			2.53
REDSTR. RF													
ROUGHEYE RF													
SIL'GRAY RF		.31		.23	.28					.84			1.66
YEL'MOUTH R													
YEL'TAIL RF			2.85	.52									3.37
WIDOW RF													
OTHER RF	.19	1.28	2.94	1.58	1.06	.09		.74			.07	.48	8.43
HAKE													
OCTOPUS	.06	.99	1.26	1.22	.11					.05	.11	.04	3.84
PERCH													
SKATE	.09	3.30	5.77	4.44	2.59					.92	.73		17.84
SQUID			.01										.01
STURGEON					.02								.02
MISC. SP.													
DOGFISH										7.13			7.13
REDUCTION		.12		.16	.13								.41
ANIMALFOOD		.35	.04										.39
TOTAL	5.61	292.20	373.28	349.61	136.77	9.65	2.22	7.09	3.77	55.22	19.76	8.23	1263.41
CRAB													
DUMPED FISH													
DISCARDS	32.70	1.47	1.79	18.95	42.34			9.07	1.36		68.90	3.18	179.76

TABLE 21. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 2BE.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.	.06	2.47	.32	3.23	3.70	.89	.45	.83	.13	12.39	3.93		28.40
ROCK SOLE	.11	1.96	3.03	9.89	18.53	3.19	5.45	4.21	9.51	1.20	2.17		59.25
PETRALE S.		.05			.29	.60	1.13		2.47	.22	.74		5.50
DOVER SOLE				.04	.76	1.11	.44	6.84	1.57				10.76
REX SOLE				.05	.12		.24						.41
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT			.01	.40	.26	8.42					.24		9.33
STAR.FLDR							.02						.02
OTHER FLAT.	.05			.96									1.01
PACIFIC COD	60.39	89.54	66.58	187.37	142.81	74.64	16.39	.21	6.31	1.72	7.29		653.25
LINGCOD	.15	.98	.10	1.59	9.88	12.75	13.99	.87	1.05	1.43	2.75		45.54
SABLEFISH				.01	.14	.08		3.36			.01		3.60
POLLOCK				6.11	.04	.03							6.18
OCEAN PERCH					271.25	231.11	.77	170.19	111.19				784.51
BOCACCIO				.26					1.43	.20			1.89
CANARY RF		.57		.77	39.49	4.80	4.03	8.86	22.57	13.45	1.36		95.90
REDSTR. RF					2.05			.72					2.77
ROUGHEYE RF					.14	.09		1.94					2.17
SIL'GRAY RF				1.24	73.82	7.00	16.83	19.00	49.97	56.08	40.22		264.16
YEL'MOUTH R					24.40	9.29		19.27		2.54			55.50
YEL'TAIL RF					2.04					.07	7.42		9.53
WIDOW RF						1.25							1.25
OTHER RF		.35		.73	21.03	1.31	.07	12.21					35.70
HAKE													
OCTOPUS	.23	.76	.31	.45	.06	.01				.01			1.83
PERCH													
SKATE	.48	.13		2.03	7.57	1.68	1.94	2.37					16.20
SQUID													
STURGEON					.05								.05
MISC. SP.									.01				.01
DOGFISH					2.10			.50					2.60
REDUCTION					.16	1.05		.80		.09			2.10
ANIMALFOOD		.34		.34	2.43	6.14	.16	18.27					27.68
TOTAL	61.47	97.15	70.35	215.47	623.12	365.44	61.91	270.45	206.21	89.40	66.13		2127.10
CRAB													
DUMPED FISH					2.72				.43				3.15
DISCARDS	.14	3.63		40.26	38.10	5.94	14.74	42.89		1.81	48.44		195.95

TABLE 22. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 5L.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.		4.32									.94		5.26
ROCK SOLE											.46		.46
PETRALE S.											.80		.80
DOVER SOLE						.02							.02
REX SOLE													
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT													
STAR.FLDR													
OTHER FLAT.													
PACIFIC COD		3.10									1.32		4.42
LINGCOD		.44				.03					.57		1.04
SABLEFISH													
POLLOCK													
OCEAN PERCH					1.57	7.37							8.94
BOCACCIO										.41			.41
CANARY RF					.05	.91		1.09	3.74	.40	4.50		10.69
REDSTR. RF						.46							.46
ROUGHEYE RF													
SIL'GRAY RF					.09			8.18	5.34	2.41	29.42		45.44
YEL'MOUTH R					.52								.52
YEL'TAIL RF						.91							.91
WIDOW RF													
OTHER RF													
HAKE													
OCTOPUS													
PERCH													
SKATE						.40							.40
SQUID													
STURGEON													
MISC. SP.													
DOGFISH													
REDUCTION		.52									.09		.61
ANIMALFOOD													
TOTAL		8.38			2.23	10.10		9.27	9.08	3.22	38.10		80.38
CRAB													
DUMPED FISH													
DISCARDS				.58									.58

TABLE 23. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 6.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.											2.60		2.60
ROCK SOLE											.17		.17
PETRALE S.						4.20							4.20
DOVER SOLE					.50								.50
REX SOLE													
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT													
STAR.FLDR													
OTHER FLAT.													
PACIFIC COD					1.57	9.26					.99		11.82
LINGCOD						2.67					.04		2.71
SABLEFISH													
POLLOCK													
OCEAN PERCH					.43								.43
BOCACCIO					1.10	1.19							2.29
CANARY RF					3.88	4.46							8.34
REDSTR. RF													
ROUGHEYE RF													
SIL'GRAY RF					7.69	4.77					3.02		15.48
YEL'MOUTH R													
YEL'TAIL RF													
WIDOW RF													
OTHER RF													
HAKE													
OCTOPUS						.03							.03
PERCH													
SKATE					.70								.70
SQUID													
STURGEON													
MISC. SP.													
DOGFISH													
REDUCTION													
ANIMALFOOD													
TOTAL					15.87	26.58					6.82		49.27
CRAB													
DUMPED FISH													
DISCARDS													

TABLE 24. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 8.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.		.06	.36	.45	.42	.79	1.17	.97	1.39	2.74	.22		8.57
ROCK SOLE			.91	.03	6.92	14.58	74.54	65.62	31.96	11.13	.22		205.91
PETRALE S.		3.53	33.52	23.00	12.02	6.17	4.09	4.35	10.89	2.23	.47		100.27
DOVER SOLE		.22	.74	2.01	4.52	4.41	.44	2.65	.37		.22		15.58
REX SOLE					2.17								2.17
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT					30.19	31.48	2.60	10.47	3.55				78.29
STAR.FLDR						.02							.02
OTHER FLAT.					.33	.92				1.73	3.05		6.03
PACIFIC COD		.44	.15	1.56	24.12	29.26	12.63	7.78	6.15	17.02	3.04		102.15
LINGCOD			.22	2.30	137.21	261.43	143.50	129.96	56.03	38.58	3.14		772.37
SABLEFISH		.03	.27	.96	1.36	.05	1.39	1.80	.04	.04			5.94
POLLOCK			.15	3.98	.19	1.82	1.37	1.65	.16	.22			9.54
OCEAN PERCH		226.75	375.10	258.26	913.70	370.77	84.09	99.37	30.09				2358.13
BOCACCIO		.55	4.54	1.06	7.56	3.30	6.13	15.63	15.91	7.44		2.31	64.43
CANARY RF		1.10	4.30	8.77	54.45	82.69	15.26	21.06	14.43	29.47	6.34	3.13	241.00
REDSTR. RF			.09	.89	2.28	7.68	.56						11.50
ROUGHEYE RF			.67	1.86	2.45	.75		.67					6.40
SIL'GRAY RF		1.10	15.31	68.34	38.73	79.14	21.52	32.94	45.13	48.48	23.06	2.41	376.16
YEL'MOUTH R		40.62	34.20	85.18	129.40	3.75	10.45	38.57					342.17
YEL'TAIL RF		13.89	.07	16.62	19.91	20.98	8.46	22.30	16.31	1.32	4.71		124.57
WIDOW RF						2.08			3.65				5.73
OTHER RF		5.43	8.23	20.51	46.49	9.78	22.78	18.38	9.63	14.73	10.03		165.99
HAKE													
OCTOPUS					.04	.01	.12	.14	.12				.43
PERCH													
SKATE			.09	.03	1.34	7.81	1.86	1.32					12.45
SQUID													
STURGEON			.07		.01								.08
MISC. SP.													
DOGFISH					8.50								8.50
REDUCTION		3.19	29.59	15.64	32.30	1.75	2.76		.08				85.31
ANIMALFOOD				.28	5.03	3.76		2.22					11.29
TOTAL		296.91	508.58	511.73	1481.64	945.18	415.72	477.85	245.89	175.13	54.50	7.85	5120.98
CRAB													
DUMPED FISH			1.36										1.36
DISCARDS		12.25	3.72	63.50	83.92	8.07		42.73	18.14	11.20	6.12		249.65

TABLE 25. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 9.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.													
ROCK SOLE					.04								.04
PETRALE S.					.15								.15
DOVER SOLE													
REX SOLE													
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT													
STAR.FLDR													
OTHER FLAT.													
PACIFIC COD													
LINGCOD					.24								.24
SABLEFISH													
POLLOCK													
OCEAN PERCH													
BOCACCIO													
CANARY RF													
REDSTR. RF													
ROUGHEYE RF													
SIL'GRAY RF													
YEL'MOUTH R													
YEL'TAIL RF					.39								.39
WIDOW RF													
OTHER RF													
HAKE													
OCTOPUS													
PERCH													
SKATE													
SQUID													
STURGEON													
MISC. SP.													
DOGFISH													
REDUCTION													
ANIMALFOOD													
TOTAL					.82								.82
CRAB													
DUMPED FISH													
DISCARDS					.91								.91

TABLE 26. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 11.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.		.03		.15	.74	.99	4.37	.68	1.07	.98	.67	.21	9.89
ROCK SOLE			.02	.30	33.24	28.55	24.85	9.92	23.11	3.52	.60	.01	124.12
PETRALE S.		1.05	1.75	.54	1.46	8.77	15.02	6.75	6.36	11.04	7.19	.29	60.22
DOVER SOLE		1.45	.10	.08	4.38	.29	17.57	1.56	1.49				26.92
REX SOLE													
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT						13.82	37.93	6.97	18.04	4.32			81.08
STAR.FLDR								.03	.01				.04
OTHER FLAT.			.98		.43		1.16					.33	3.10
PACIFIC COD		.03	1.38	.95	12.93	22.18	14.01	7.51	5.94	11.99	2.21	2.15	81.28
LINGCOD		2.45	24.24	.03	26.55	170.57	168.65	59.97	59.11	26.41	33.75	.87	572.60
SABLEFISH		.29		11.38			.46	1.61	.67	19.35	.01	.05	33.82
POLLOCK			.04		.31	1.62	.69		7.21			1.42	11.29
OCEAN PERCH		114.46	176.18	172.56	12.65	9.40	.64	37.21	.73	2.73			526.56
BOCACCIO		.91		.25	.90	10.42	1.51	5.33	2.99	2.62	2.95	.89	28.77
CANARY RF		6.97	7.81	1.92	18.35	22.06	18.29	4.09	3.90	16.86	13.17	5.87	119.29
REDSTR. RF					20.55	.21		.01					20.77
ROUGHEYE RF		.98	.22	.53				.01					1.74
SIL'GRAY RF		17.57	4.04	7.43	12.29	47.36	22.49	32.22	29.61	66.13	20.23	6.33	265.70
YEL'MOUTH R		9.76	17.55	12.43	303.39	47.81		20.04	.02				411.00
YEL'TAIL RF		54.51	.18	5.38	1.79	1.99	2.22	.95	.18	31.06	69.11	30.40	197.77
WIDOW RF		.88			3.08	4.84							8.80
OTHER RF		6.83	3.83	18.04	.70	1.24	2.23	6.94	20.81			1.40	62.02
HAKE													
OCTOPUS			.02		.03	.01	.04	.06	.06		.02		.24
PERCH													
SKATE			.18		.91	2.74	3.43	.47	.71	.40	.90		9.74
SQUID													
STURGEON				.09	.43								.52
MISC. SP.													
DOGFISH													
REDUCTION		23.53	7.30	2.72	16.09	4.15	4.45	.22	.24	2.35	.35	2.02	63.42
ANIMALFOOD				1.13				8.51	.03				9.67
TOTAL		241.70	245.82	235.91	471.20	399.02	340.01	211.06	182.29	199.76	151.16	52.44	2730.37
CRAB			.04										.04
DUMPED FISH													
DISCARDS		2.72		1.81	3.18	13.61	48.99	19.36	7.62	48.58	9.07		154.94

TABLE 27. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 25.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.				.11	.14		.99		.56	.18			1.98
ROCK SOLE				.02	.09	.71	.81		.21				1.84
PETRALE S.				1.14	2.28	.48	.16		4.61	.71			9.38
DOVER SOLE				11.70	2.12	.90	3.68		.28	1.30			19.98
REX SOLE													
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT													
STAR.FLDR													
OTHER FLAT.					.98	.47							1.45
PACIFIC COD				1.67	7.47	2.04	3.08		.36	.90			15.52
LINGCOD				3.47	35.81	53.31	25.89	6.45	19.44	4.13			148.50
SABLEFISH	.01			.66	2.58	7.76	2.93		3.40	5.29			22.63
POLLOCK				.13	.33	.08	.01						.55
OCEAN PERCH	7.45	1.15		68.82	18.67	102.85	18.53		18.39	141.69			377.55
BOCACCIO					1.88		.18			.52			2.58
CANARY RF				3.64	128.00	168.38	37.41		9.38	13.83			360.64
REDSTR. RF	4.60				1.71	5.92	3.62		1.58	.87			18.30
ROUGHEYE RF	1.32												1.32
SIL'GRAY RF				1.01	77.57	162.26	56.16		28.14	16.53			341.67
YEL'MOUTH R	.66			.21	1.46	7.91	5.20			3.99			19.43
YEL'TAIL RF					2.94	3.50			1.88				1.32
WIDOW RF									1.88				1.88
OTHER RF	1.54	3.52		16.65	4.38	17.73	3.07		33.95	10.48			91.32
HAKE													
OCTOPUS													
PERCH													
SKATE						.26	.22						.48
SQUID													
STURGEON													
MISC. SP.													
DOGFISH				38.10	16.15								54.25
REDUCTION	.76			6.66	14.13	12.27	3.65		3.92	10.73			52.12
ANIMALFOOD													
TOTAL	16.34	4.67		153.99	318.69	546.83	165.59	6.45	127.98	211.15			1551.69
CRAB													
DUMPED FISH													
DISCARDS					30.39								30.39

TABLE 28. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 26.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.	.18				.92	.18		.05	.09	.03			1.45
ROCK SOLE					.35	.03	.28						.66
PETRALE S.					.50	1.00		.32	.51	.56			2.89
DOVER SOLE						.07			.90	.65	.14		1.76
REX SOLE													
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT													
STAR.FLDR													
OTHER FLAT.								1.13					1.13
PACIFIC COD	.01	.04				.26				.10			.41
LINGCOD					1.73	5.71	1.57	3.37	1.29	5.47	.49		19.63
SABLEFISH						.80				3.25	.07		4.12
POLLOCK													
OCEAN PERCH						12.29				25.54			37.83
BOCACCIO								.99	.13	5.35	.04		6.51
CANARY RF	2.20	.03			.61	6.51	1.13	.49		31.20	14.27		56.44
REDSTR. RF						.33					.97		1.30
ROUGHEYE RF													
SIL'GRAY RF	5.28				.05	6.51	2.07	3.95	2.51	40.72	14.36		75.45
YEL'MOUTH R						4.65							4.65
YEL'TAIL RF	2.20	.01			.25	.22				1.45	1.14		5.27
WIDOW RF													
OTHER RF	.88					14.93	.01	15.33	16.59	11.39	1.61		60.74
HAKE													
OCTOPUS													
PERCH													
SKATE													
SQUID													
STURGEON													
MISC. SP.													
DOGFISH													
REDUCTION	.91									5.02	6.88		12.81
ANIMALFOOD													
TOTAL	11.66	.08			4.41	53.49	5.06	25.63	22.02	130.73	39.97		293.05
CRAB													
DUMPED FISH													
DISCARDS										.82	3.18		4.00

TABLE 29. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 27.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.		.04			.24	.08							.36
ROCK SOLE					3.50	10.58	8.56	1.15	4.50	.56			28.85
PETRALE S.					1.64	5.46	3.53	.98	5.02	.33	.13	.22	17.31
DOVER SOLE					.22	.09	2.20		3.18	1.98	.55	.46	8.68
REX SOLE													
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT													
STAR.FLDR							.01						.01
OTHER FLAT.						2.35	3.73	.92	1.46				8.46
PACIFIC COD			.06		.86	1.55	.37	.19	.90	.51	.09		4.53
LINGCOD				.48	36.81	71.64	77.09	14.70	62.16	7.44	3.95		274.27
SABLEFISH							.30	.05	1.22	3.20	.02		4.79
POLLOCK													
OCEAN PERCH										19.63	4.89	23.43	47.95
BOCACCIO					3.35	.56	3.01	.49	6.75	1.13	1.69		16.98
CANARY RF		.13			20.72	57.02	55.47	14.20	72.93	46.09	15.74		282.30
REDSTR. RF											.49	2.02	2.51
ROUGHEYE RF													
SIL'GRAY RF					19.38	5.98	22.24	1.48	36.50	47.46	10.03		143.07
YEL'MOUTH R											3.40	12.35	15.75
YEL'TAIL RF					6.16				14.11	1.13	1.14		22.54
WIDOW RF										1.13			1.13
OTHER RF				2.30	1.49	1.33	5.94	15.02	37.25	4.17	2.10	5.37	74.97
HAKE						.04	.08	.01	.05		.01		.19
OCTOPUS													
PERCH													
SKATE					.03	.11	.33		.27				.74
SQUID													
STURGEON						.02							.02
MISC. SP.													
DOGFISH													
REDUCTION									24.20	3.80			28.00
ANIMALFOOD													
TOTAL		.17	.06	2.78	94.40	156.81	182.86	49.19	270.50	138.56	44.23	43.85	983.41
CRAB													
DUMPED FISH													
DISCARDS				1.13	13.52	11.34					1.36		27.35

TABLE 30. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 21.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.		.16	1.07		.67	.86	1.14						3.90
ROCK SOLE			2.45		.56	.57	1.87	.10					5.55
PETRALE S.					10.79	4.36	2.43	2.17					19.75
DOVER SOLE				4.79	.45			1.27					6.51
REX SOLE													
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT					2.14	.92	.46	1.69					5.21
STAR.FLDR													
OTHER FLAT.				1.03	2.57	5.31							8.91
PACIFIC COD		.05	8.09	21.29	203.91	43.44	5.81	5.50				.51	288.60
LINGCOD				.20	33.07	43.68	15.78	6.99					99.72
SABLEFISH				.16	5.37	.04	5.53	5.15					16.25
POLLOCK					.06	.03							.09
OCEAN PERCH				.64									.64
BOCACCIO													
CANARY RF							.68	.71					1.39
REDSTR. RF													
ROUGHEYE RF													
SIL'GRAY RF							.68						.68
YEL'MOUTH R													
YEL'TAIL RF				.05	.06	.80		.71					1.62
WIDOW RF				.36	1.41	3.71							5.48
OTHER RF													
HAKE													
OCTOPUS					.07		.02						.09
PERCH													
SKATE			.39	.50	.84	.32	1.23	.04					3.32
SQUID													
STURGEON					.02	.04							.06
MISC. SP.													
DOGFISH			5.95				15.00						20.95
REDUCTION													
ANIMALFOOD													
TOTAL		.21	17.95	29.02	261.99	104.08	50.63	24.33				.51	488.72
CRAB													
DUMPED FISH				.09									.09
DISCARDS					.57	9.07	31.75	27.22		9.53			78.14

TABLE 31. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 23.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.		1.21	1.41	6.02	4.00	3.44	3.73	2.80	7.66	7.42			37.69
ROCK SOLE		6.21	3.04	.85	3.76	11.70	5.63	6.21	.65	2.20			40.25
PETRALE S.	.15	.17	.57	1.09	3.78	16.68	18.78	11.43	27.26	21.09			101.00
DOVER SOLE			2.80	2.34	1.86	6.67	1.62	1.23	1.41	.20			18.13
REX SOLE	.25	.47											.72
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE				.01									.01
TURBOT		.04		.20	.03	6.13	4.80	23.30	1.64	.73			36.87
STAR.FLDR		.33										.24	.57
OTHER FLAT.		1.38	1.04	.92	5.13	8.80	.53	4.19	4.05	2.27	.06	1.04	29.41
PACIFIC COD	1.42	45.13	51.16	19.61	57.51	45.90	19.77	10.10	16.38	46.14	26.42	8.52	348.06
LINGCOD	.08	6.92		1.13	18.79	283.69	186.11	171.24	84.33	33.14	.31		785.74
SABLEFISH	.01	.02	.49	.49	.11	7.31	10.82	11.61	29.22	30.88			90.96
POLLOCK		.05		.07	.11	2.77	.03	.14					3.17
OCEAN PERCH	.66	2.96	10.50	16.10	.09	24.98			118.28	2.22			175.79
BOCACCIO							.18	.20					.38
CANARY RF					10.09	3.58	7.78	.31		.10			21.86
REDSTR. RF									.79				.79
ROUGHEYE RF													
SIL'GRAY RF						2.97	13.24	.23	2.03	.51			18.98
YEL'MOUTH R				7.99						.38			8.37
YEL'TAIL RF				.88	.06	1.02	.70		2.73	8.92			14.31
WIDOW RF									1.17	10.65			11.82
OTHER RF	.66	.72	.90	2.80	2.98	14.28	8.42	2.47	10.40	7.70	.01	.25	51.59
HAKE													
OCTOPUS		.04	.09		.02	.01	.01	.02	.02	.07			.28
PERCH													
SKATE		.33	.35	.59	.10	3.29	3.06	.87	.41	.01	.05	.04	9.10
SQUID													
STURGEON	.04	.01			.09	.07						.03	.24
MISC. SP.								.01					.01
DOGFISH		64.28	109.96	39.89	64.47	35.81	18.20		16.95	72.95			422.51
REDUCTION					.48	.09	8.18		12.70	.16			21.61
ANIMALFOOD													
TOTAL	3.27	130.27	182.31	100.98	173.46	479.19	311.59	246.36	338.08	247.74	26.85	10.12	2250.22
CRAB			.01										.01
DUMPED FISH								.19					.19
DISCARDS			23.13		1.13	72.58	61.24		27.22	77.11			262.41

TABLE 32. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 24.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.				.08	.05	1.73	.13	.60		.15			2.74
ROCK SOLE				5.27	.07	1.33	1.58	.55		.07			8.87
PETRALE S.	1.43	.04	11.04	40.20	.69	4.42	2.94	.88	.86	.63	.12		63.25
DOVER SOLE	.05			29.38	4.04	7.82		.66	.07	.43			42.45
REX SOLE				.01									.01
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT													
STAR.FLDR							3.46						3.46
OTHER FLAT.		.50	.19	1.69	.88	1.85			2.34	1.81	.65		.88
					1.88								10.91
PACIFIC COD		3.69	4.06	16.63	.05	8.29	.64	.85	.37	2.12	.51		37.21
LINGCOD				3.27	13.98	26.90	17.74	9.98	11.38	1.82	.19		85.26
SABLEFISH				.95	1.38	.37	.22		4.37	1.08			8.37
POLLOCK					.02								.02
OCEAN PERCH		.87		76.18	25.87	24.58			48.23	21.81			197.54
BOCACCIO						8.70		.21					8.91
CANARY RF				4.54		112.64		.63	6.48	8.02			132.31
REDSTR. RF					5.30	2.38			2.11	1.20			10.99
ROUGHEYE RF				.62									.62
SIL'GRAY RF				2.27		59.46		.42	4.05				66.20
YEL'MOUTH R				11.27		12.21				.75			24.23
YEL'TAIL RF						.62							.62
WIDOW RF				.95									.95
OTHER RF		.88		30.24	34.56	8.22			8.65	12.10	11.53		106.18
HAKE													
OCTOPUS													
PERCH										.04			.04
SKATE		.07	.05	.34	.03	.34				.05	.03		.91
SQUID		.03			.02					.03			.08
STURGEON									.17				.17
MISC. SP.													
DOGFISH					7.03								7.03
REDUCTION				5.79		19.59			3.08	3.96			32.42
ANIMALFOOD													
TOTAL	1.48	6.08	15.34	229.68	95.85	301.45	26.71	14.78	92.16	56.07	13.03		852.63
CRAB													
DUMPED FISH													
DISCARDS			5.67	11.34	14.06		29.94						61.01

TABLE 33. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 12.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.	.12										.96	.45	1.53
ROCK SOLE	.05										.26	.27	.58
PETRALE S.													
DOVER SOLE													
REX SOLE													
BUTTER SOLE													
FLATHEAD S.											1.12	1.53	2.65
SAND SOLE													
TURBOT	.14												.14
STAR.FLDR	.42					2.44					3.88	3.84	10.58
OTHER FLAT.						1.82			.47				2.29
PACIFIC COD	1.68					.28			.01		2.26	1.85	6.08
LINGCOD						.25			2.02				2.27
SABLEFISH									.02				.02
POLLOCK													
OCEAN PERCH													
BOCACCIO													
CANARY RF									1.52				1.52
REDSTR. RF													
ROUGHEYE RF													
SIL'GRAY RF													
YEL'MOUTH R													
YEL'TAIL RF													
WIDOW RF													
OTHER RF						.52			.50		.11	.08	1.21
HAKE													
OCTOPUS													
PERCH													
SKATE						.06					.26	.11	.43
SQUID													
STURGEON													
MISC. SP.													
DOGFISH													
REDUCTION													
ANIMALFOOD													
TOTAL	2.41					5.37			4.54		8.85	8.13	29.30
CRAB													
DUMPED FISH													
DISCARDS													

TABLE 34. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 13.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.	.10		.10									.05	.25
ROCK SOLE	.24		.12										.36
PETRALE S.													
DOVER SOLE													
REX SOLE													
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT													5.08
STAR.FLDR	5.08												
OTHER FLAT.											1.21	2.22	15.47
PACIFIC COD	5.89	2.75	3.40										
LINGCOD													
SABLEFISH													
POLLOCK													
OCEAN PERCH													
BOCACCIO													
CANARY RF													
REDSTR. RF													
ROUGHEYE RF													
SIL'GRAY RF													
YEL'MOUTH R													
YEL'TAIL RF													
WIDOW RF													.09
OTHER RF		.03	.06										
HAKE													.02
OCTOPUS			.02										
PERCH													.01
SKATE			.01										
SQUID													.01
STURGEON			.01										
MISC. SP.													
DOGFISH		13.06	17.56								21.22		51.84
REDUCTION													
ANIMALFOOD													
TOTAL	11.31	15.84	21.28								22.43	2.27	73.13
CRAB													
DUMPED FISH													
DISCARDS													

TABLE 35. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 14.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.	3.72	4.80	3.33			.12				.14			12.11
ROCK SOLE	.16	.66										.05	.87
PETRALE S.													
DOVER SOLE													
REX SOLE													
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT										1.60		3.12	8.99
STAR.FLDR	1.68	1.67	.92							.15		1.16	4.37
OTHER FLAT.	.13	2.35	.49	.09									
PACIFIC COD	1.99	15.93	6.52	.52		2.26				1.83	1.26	1.21	31.52
LINGCOD						.05				1.43	.05		1.53
SABLEFISH						.06							.06
POLLOCK													
OCEAN PERCH										.01			.01
BOCACCIO										.01			.01
CANARY RF													
REDSTR. RF													
ROUGHEYE RF													
SIL'GRAY RF													
YEL'MOUTH R										.04			.04
YEL'TAIL RF													
WIDOW RF										.20		.19	.83
OTHER RF		.30	.04			.10							
HAKE						52.99							52.99
OCTOPUS										.02		.02	1.18
PERCH			.54	.60						.05		.09	.77
SKATE	.02	.30	.28			.03							.04
SQUID						.04							
STURGEON													
MISC. SP.													
DOGFISH		13.00				7.65				1.41	.85		22.91
REDUCTION													
ANIMALFOOD													
TOTAL	7.70	39.01	12.12	1.21		63.30				6.89	2.16	5.84	138.23
CRAB										2.90			2.90
DUMPED FISH													
DISCARDS													

TABLE 36. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 16.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.													
ROCK SOLE													
PETRALE S.													
DOVER SOLE													
REX SOLE													
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT													
STAR.FLDR													
OTHER FLAT.													
PACIFIC COD													
LINGCOD													
SABLEFISH													
POLLOCK													
OCEAN PERCH													
BOCACCIO													
CANARY RF													
REDSTR. RF													
ROUGHEYE RF													
SIL'GRAY RF													
YEL'MOUTH R													
YEL'TAIL RF													
WIDOW RF													
OTHER RF													
HAKE				335.66	426.38	54.43							816.47
OCTOPUS													
PERCH													
SKATE													
SQUID													
STURGEON													
MISC. SP.													
DOGFISH													
REDUCTION													
ANIMALFOOD													
TOTAL				335.66	426.38	54.43							816.47
CRAB													
DUMPED FISH													
DISCARDS													

TABLE 37. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 17.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.		.13									.28		.41
ROCK SOLE													
PETRALE S.													
DOVER SOLE													
REX SOLE													
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT													
STAR.FLDR		.35	.35	.25							.01		.96
OTHER FLAT.	2.34	3.46	2.94	2.06	1.42		.20	1.60	.34		1.81	1.60	17.77
PACIFIC COD	.27	4.06	4.16	8.28	3.42		.11	.09			2.82	1.55	24.76
LINGCOD				.37	.05						.03		.45
SABLEFISH											.07		.07
POLLOCK		.18											.18
OCEAN PERCH													
BOCACCIO													
CANARY RF													
REDSTR. RF													
ROUGHEYE RF													
SIL'GRAY RF													
YEL'MOUTH R													
YEL'TAIL RF													
WIDOW RF													
OTHER RF	.18	1.01	.46	.85	.55		.05	.01			.09	.26	3.46
HAKE		31.26		791.08	1299.58	117.70							2239.62
OCTOPUS			.01	.02									.03
PERCH			.51	1.76								.05	2.32
SKATE	.02	.03	.02	.03	.24						.07		.41
SQUID													
STURGEON													
MISC. SP.													
DOGFISH				16.78		18.14							34.92
REDUCTION													
ANIMALFOOD													
TOTAL	2.81	40.48	8.45	821.48	1305.26	135.84	.36	1.70	.34		5.18	3.46	2325.36
CRAB	.01												.01
DUMPED FISH													
DISCARDS		.48											.48

TABLE 38. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 18.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.	.39	.95	.03	.01		.02	.02			.73	.98	.02	3.15
ROCK SOLE		.42									.06		.48
PETRALE S.						.01							.01
DOVER SOLE							.02						.02
REX SOLE													
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT		.15	.15										.30
STAR.FLDR	.10	1.77	.16	.02							.46		2.51
OTHER FLAT.	2.02	4.01	2.69	2.60	.73	.87	2.84	.77	2.81	6.55	6.08	4.49	36.46
PACIFIC COD	5.34	31.94	27.42	15.44	1.03	1.52	3.17	.49	1.58	5.19	8.18	8.30	109.60
LINGCOD		3.23	.01	.21	.33	.57	.52	.24	.54	.77	1.26		7.68
SABLEFISH		.07	.01	.03		.02	.39		.09		.01		.62
POLLOCK		.38	8.71	.08	.03		.03	.04	.03	.04	.01	.06	9.41
OCEAN PERCH													
BOCACCIO													
CANARY RF													
REDSTR. RF													
ROUGHEYE RF													
SIL'GRAY RF													
YEL'MOUTH R													
YEL'TAIL RF													
WIDOW RF													
OTHER RF	.58	.74	.66	1.04	.79	.75	.58	.29	1.93	1.51	1.11	1.16	11.14
HAKE	.07	.11	.15	.19	.28	.07	.07	.06	.08	.07	.05	.09	1.29
OCTOPUS		.07	.09	.05			.01	.02	.04	.01	.11	.04	.44
PERCH	.15	.04	.07	.20	.05					.12	.11	.11	.85
SKATE	.44	.81	.63	.54	.21	.07	.29	.16	.42	.39	.52	.35	4.83
SQUID				.01	.03	.04	.09	.05	.09	.06	.05	.04	.46
STURGEON													
MISC. SP.													
DOGFISH		.16	36.29		11.39	56.74	28.31	25.51	15.88	29.23	75.21		278.72
REDUCTION													
ANIMALFOOD													
TOTAL	9.09	44.85	77.07	20.42	14.87	60.68	36.34	27.63	23.49	44.67	94.20	14.66	467.97
CRAB		.12	.26						.01	.01		.05	.45
DUMPED FISH											.64		.64
DISCARDS			3.63							3.64	3.18		10.45

TABLE 39. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 19.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.	.04		.37			.43		.27				.26	1.37
ROCK SOLE	.02		.27					.37				.11	.77
PETRALE S.									.01	3.60		.01	3.62
DOVER SOLE			.02										.02
REX SOLE			.03										.03
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT	.14	.07	1.06	.07		.16	.12	.09	2.57	3.69	.76		8.73
STAR.FLDR			.26	.05									.31
OTHER FLAT.	.76	.32	1.64	.15		.29	.64	.64	1.10	6.85	.83	.41	13.63
PACIFIC COD	101.97	32.17	34.54	15.07		9.96	33.34	60.23	67.48	101.83	100.98	64.62	622.19
LINGCOD	17.74	13.18				1.19	1.61	2.87	10.92	14.44	2.35		64.30
SABLEFISH	.04		.02			.01		.01		7.27	.27	.03	7.65
POLLOCK	1.20	.06					.02		.05	.47	.08	.08	1.96
OCEAN PERCH													
BOCACCIO													
CANARY RF	.01												.01
REDSTR. RF													
ROUGHEYE RF													
SIL'GRAY RF													
YEL'MOUTH R													
YEL'TAIL RF	.01												.01
WIDOW RF													
OTHER RF	.53	.04	.62	.04		.01			.03	2.71	.16	.06	4.20
HAKE													
OCTOPUS	.03					.02	.02	.02	.15	.16	.20	.02	.62
PERCH													
SKATE	.59	.16	.33	.12		.13	.28	.08	.26	.77	.21	.23	3.16
SQUID													
STURGEON	.01										.03		.04
MISC. SP.													
DOGFISH			.17							34.02	.86		35.05
REDUCTION										.23			.23
ANIMALFOOD													
TOTAL	123.09	46.00	39.33	15.50		12.20	36.03	64.58	82.57	176.04	106.73	65.83	767.90
CRAB		.06	.04										.10
DUMPED FISH											2.46	.77	3.23
DISCARDS			2.49								4.54		7.03

TABLE 40. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 20.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.	3.67	1.19	.39		.39	1.71	.95	.36	1.97	4.59	.25		15.47
ROCK SOLE	.73												.73
PETRALE S.	.24	.59	.38	.36	.26	.07		.27		.88			3.05
DOVER SOLE		.05		.26	2.34	10.17	9.44	4.72	12.59	4.59	1.77		45.93
REX SOLE	.13												.13
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT				.49	.59	1.48	.82		.33	.30			4.01
STAR.FLDR	.01									.01			.02
OTHER FLAT.	.53	1.49	3.49	7.67	8.04	3.37		2.94	.48	8.60	4.43	2.96	44.00
PACIFIC COD	8.86	7.09	3.11	5.14	8.65	2.97	.31	8.96	22.18	10.50	4.31	10.57	92.65
LINGCOD				.29	.76	.99	.20	2.40	2.40	1.37		.24	8.65
SABLEFISH					.02	1.14	.31	.31	.05	.10	.10		2.03
POLLOCK	.90	.14				.11	.07		.28	1.66			3.16
OCEAN PERCH													
BOCACCIO													
CANARY RF													
REDSTR. RF													
ROUGHEYE RF													
SIL'GRAY RF													
YEL'MOUTH R													
YEL'TAIL RF													
WIDOW RF													
OTHER RF	.31	.08	.07	.55	1.33	.27	.18	.02	.04	1.21	.16	.59	4.81
HAKE													
OCTOPUS	.04					.03			.04	.10	.05	.04	.30
PERCH													
SKATE	.69	.14	.17	.95	.76	.39	.07	.04	.15	.51	.35	.21	4.43
SQUID													
STURGEON													
MISC. SP.													
DOGFISH			.38										.38
REDUCTION													
ANIMALFOOD													
TOTAL	16.11	10.77	7.99	15.71	23.14	22.70	12.35	20.02	40.51	34.42	11.42	14.61	229.75
CRAB			.05	.04	.06	.01					.01		.17
DUMPED FISH										.20	.28		.48
DISCARDS						2.72							2.72

TABLE 41. 1983 BRITISH COLUMBIA TRAWL LANDINGS (T) OF GROUNDFISH FROM STATISTICAL AREA 29.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ENGLISH S.											.67		.67
ROCK SOLE		.58											.58
PETRALE S.													
DOVER SOLE													
REX SOLE													
BUTTER SOLE													
FLATHEAD S.													
SAND SOLE													
TURBOT													
STAR.FLDR													
OTHER FLAT.													
PACIFIC COD		.71									.54		1.25
LINGCOD											.37		.37
SABLEFISH													
POLLOCK			10.59										10.59
OCEAN PERCH													
BOCACCIO													
CANARY RF													
REDSTR. RF													
ROUGHEYE RF													
SIL'GRAY RF													
YEL'MOUTH R													
YEL'TAIL RF											.04		.04
WIDOW RF													
OTHER RF											.03		.03
HAKE		11.18											11.18
OCTOPUS											.01		.01
PERCH													
SKATE											.18		.18
SQUID													
STURGEON													
MISC. SP.													
DOGFISH											10.41		10.41
REDUCTION													
ANIMALFOOD													
TOTAL		12.47	10.59								12.25		35.31
CRAB													
DUMPED FISH													
DISCARDS											4.17		4.17

OTHER GROUNDFISH FISHERIES

Groundfish landings in this category are those caught by longline, trap, handline and troll. In 1983, these landings totalled 6,265 t, the same level as 1982. Sablefish accounted for 66% of the catch by other gear, with landings of 4,140 t, 11% above those for the previous year. Dogfish landings of 884 t increased 3% from the 1982 level. Catches by main species, gear type and major area are presented in Table 42.

No effort data are available for handline, troll, or incidental to halibut longline. The catches for these gears were obtained from sales slips and the report, British Columbia Catch Statistics, 1983, Fisheries and Oceans, Fisheries Management, Pacific Region.

Interviews were conducted with skippers of longline and trap vessels to obtain catch and effort data. In the longline fishery, 12% (by weight) of the total catch (1,438 t) was covered by these interviews. Table 43 shows the total landings and monitored effort together with the monitored landings and CPUE, by major area and month. The target species for the longline fishery were dogfish (884 t) and sablefish (453 t). The dogfish fishery was centered in the Strait of Georgia (Area 4B) with 89% caught from this area. The longline sablefish fishery took place mainly off the northwest coast of Vancouver Island (Area 3D) with 74% of the catch. Tables 44-51 show the main species landed by major area and month. Longline landings by minor area in 1983 are given in Table 52.

Total trap landings in 1983 were 3,672 t, 7% above the 1982 level. Eighty-one percent (by weight) of the trap landings were covered by interviews. Table 53 shows the monitored landings, effort and CPUE and the total landings by major area and month. Sablefish landings of 3,672 t accounted for 99.99% of the trap catch. The main areas of production were the west coast of Queen Charlotte Islands (Area 5E) and north Queen Charlotte Sound (Area 5B), accounting for 35% and 26% of the catch; respectively. Trap landings of groundfish in 1983 by major area, month and main species are presented in Tables 54-61. A breakdown of the trap landings by species and minor areas are given in Table 62.

Table 42. British Columbia landings (t, round weight) of groundfish caught by gear other than trawl in 1983 by major area and species.

Gear and Species	Major Area								Total
	4B	3C	3D	5A	5B	5C	5D	5E	
Handline and troll									
Lingcod	270.59	163.53	132.43	29.26	5.42	32.96	40.52	6.95	681.66
Pacific cod	2.47	4.12	-	-	-	0.04	1.42	0.27	8.32
Rockfish	263.98	27.99	26.98	11.58	2.83	5.01	9.56	0.73	348.66
Sablefish	-	-	1.94	-	-	-	10.29	-	12.23
Incidental to halibut longline									
Lingcod	0.51	3.66	2.67	5.87	2.47	23.24	9.99	3.53	51.94
Pacific cod	0.02	-	-	-	-	0.01	0.01	0.01	0.05
Rockfish	1.45	2.09	1.02	7.98	2.01	21.59	9.25	3.49	48.88
Sablefish	0.03	0.11	0.06	-	2.63	0.34	0.07	-	3.24
Longline									
Dogfish	790.86	76.65	-	15.99	-	-	-	-	883.50
Lingcod	10.95	-	9.90	1.77	-	2.47	5.88	1.66	32.63
Pacific cod	0.09	-	-	-	-	-	0.84	-	0.93
Rockfish	25.49	0.03	24.52	0.26	-	1.41	7.90	7.91	67.52
Sablefish	-	8.16	334.88	0.77	7.63	7.38	75.11	18.61	452.54
Misc. species	0.29	-	0.27	-	-	0.05	0.15	-	0.76
Trap									
Lingcod	-	-	-	-	-	0.01	0.01	-	0.02
Rockfish	-	-	-	-	-	0.16	0.06	-	0.22
Sablefish	-	233.69	543.34	502.46	953.13	131.27	22.64	1285.24	3671.77
Total	1366.73	520.03	1078.01	575.94	976.12	225.94	193.70	1328.40	6264.87

Table 43. Total landings (t), monitored landings (t), and monitored effort (hooks x 1,000) for the British Columbia longline fleet in 1983 (excludes halibut).

Month	Major Area 4B				3C				3D			
	Total landings (t)	Monitored landings (t)	Monitored effort (hooks x 1000)	Monitored CPUE (t/1000 hooks)	Total landings (t)	Monitored landings (t)	Monitored effort (hooks x 1000)	Monitored CPUE (t/1000 hooks)	Total landings (t)	Monitored landings (t)	Monitored effort (hooks x 1000)	Monitored CPUE (t/1000 hooks)
January	145.82	-	-	-	-	-	-	-	-	-	-	-
February	120.70	-	-	-	-	-	-	-	1.19	-	-	-
March	15.37	-	-	-	-	-	-	-	0.73	-	-	-
April	44.63	-	-	-	-	-	-	-	0.62	-	-	-
May	78.95	-	-	-	54.46	-	-	-	49.46	-	-	-
June	16.87	7.43	10.00	0.743	13.15	-	-	-	75.15	-	-	-
July	2.33	-	-	-	-	-	-	-	16.19	-	-	-
August	10.25	-	-	-	-	-	-	-	141.52	-	-	-
September	50.02	-	-	-	17.23	-	-	-	84.71	-	-	-
October	72.34	14.79	14.40	1.027	-	-	-	-	-	-	-	-
November	177.76	33.86	42.12	0.804	-	-	-	-	-	-	-	-
December	92.64	42.41	50.10	0.847	-	-	-	-	-	-	-	-
Total	827.68	98.49	116.62	0.845	84.84	-	-	-	369.57	-	-	-

Table 43 (cont'd)

Month	Major Area 5A				5B				5C			
	Total landings (t)	Monitored landings (t)	Monitored effort (hooks x 1000)	Monitored CPUE (t/1000 hooks)	Total landings (t)	Monitored landings (t)	Monitored effort (hooks x 1000)	Monitored CPUE (t/1000 hooks)	Total landings (t)	Monitored landings (t)	Monitored effort (hooks x 1000)	Monitored CPUE (t/1000 hooks)
January	-	-	-	-	-	-	-	-	-	-	-	-
February	-	-	-	-	-	-	-	-	0.44	-	-	-
March	-	-	-	-	-	-	-	-	-	-	-	-
April	1.26	-	-	-	-	-	-	-	-	-	-	-
May	1.13	-	-	-	7.63	7.63	10.40	0.734	4.54	-	-	-
June	-	-	-	-	-	-	-	-	5.28	-	-	-
July	-	-	-	-	-	-	-	-	0.05	-	-	-
August	-	-	-	-	-	-	-	-	-	-	-	-
September	0.41	-	-	-	-	-	-	-	-	-	-	-
October	-	-	-	-	-	-	-	-	-	-	-	-
November	5.75	-	-	-	-	-	-	-	-	-	-	-
December	10.24	-	-	-	-	-	-	-	-	-	-	-
Total	18.79	-	-	-	7.63	7.63	10.40	0.734	11.31	-	-	-

Table 43 (cont'd)

Month	Major Area: 5O Total landings (t)	5O Monitored landings (t)	5O Monitored effort (hooks x 1000)	5O Monitored CPUE (t/1000 hooks)	5E Total landings (t)	5E Monitored landings (t)	5E Monitored effort (hooks x 1000)	5E Monitored CPUE (t/1000 hooks)	Total Total landings (t)	Total Monitored landings (t)	Total Monitored effort (hooks x 1000)	Total Monitored CPUE (t/1000 hooks)
January	-	-	-	-	-	-	-	-	145.82	-	-	-
February	-	-	-	-	-	-	-	-	122.33	-	-	-
March	2.83	-	-	-	-	-	-	-	18.93	-	-	-
April	7.74	-	-	-	-	-	-	-	54.25	-	-	-
May	2.85	1.00	9.10	0.110	9.90	5.25	9.10	0.577	208.92	13.88	28.60	0.485
June	21.39	21.12	203.67	0.104	-	-	-	-	132.84	28.55	213.67	0.134
July	9.51	9.51	91.00	0.105	0.29	-	-	-	28.37	9.51	91.00	0.104
August	23.98	20.31	221.00	0.092	17.99	11.34	104.00	0.109	193.74	31.65	325.00	0.097
September	21.58	-	-	-	-	-	-	-	173.95	-	-	-
October	-	-	-	-	-	-	-	-	72.34	14.79	14.40	1.027
November	-	-	-	-	-	-	-	-	183.51	33.86	42.12	0.804
December	-	-	-	-	-	-	-	-	102.88	42.41	50.10	0.847
Total	89.88	51.94	524.77	0.099	28.18	16.59	113.10	0.147	1437.88	174.65	764.89	0.228

Table 44. 1983 British Columbia longline landings (t) of groundfish—International Area 4B, Strait of Georgia.

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Dogfish	144.12	117.62	10.91	35.43	77.07	15.27	-	7.26	47.39	70.25	175.60	89.94	790.86
Lingcod	-	-	-	6.88	0.16	0.67	0.58	0.92	0.77	0.69	0.28	-	10.95
Pacific cod	-	0.05	0.04	-	-	-	-	-	-	-	-	-	0.09
Rockfish	1.67	2.98	4.36	2.28	1.65	0.93	1.72	2.06	1.86	1.40	1.88	2.70	25.49
Sablefish	-	-	-	-	-	-	-	-	-	-	-	-	-
Misc. species	0.03	0.05	0.06	0.04	0.07	-	0.03	0.01	-	-	-	-	0.29
Total	145.82	120.70	15.37	44.63	78.95	16.87	2.33	10.25	50.02	72.34	177.76	92.64	827.68

Table 45. 1983 British Columbia longline landings (t) of groundfish—International Area 3C, southwest coast of Vancouver Island.

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Dogfish	-	-	-	-	54.43	13.15	-	-	9.07	-	-	-	76.65
Lingcod	-	-	-	-	-	-	-	-	-	-	-	-	-
Pacific cod	-	-	-	-	-	-	-	-	-	-	-	-	-
Rockfish	-	-	-	-	0.03	-	-	-	-	-	-	-	0.03
Sablefish	-	-	-	-	-	-	-	-	8.16	-	-	-	8.16
Misc. species	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	54.46	13.15	-	-	17.23	-	-	-	84.84

Table 46. 1983 British Columbia longline landings (t) of groundfish—International Area 3D, northwest coast of Vancouver Island.

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Dogfish	-	-	-	-	-	-	-	-	-	-	-	-	-
Lingcod	-	1.19	0.15	0.15	4.36	0.68	0.07	2.85	0.45	-	-	-	9.90
Pacific cod	-	-	-	-	-	-	-	-	-	-	-	-	-
Rockfish	-	-	0.58	0.47	2.21	4.45	-	15.00	1.81	-	-	-	24.52
Sablefish	-	-	-	-	42.89	70.02	16.12	123.40	82.45	-	-	-	334.88
Misc. species	-	-	-	-	-	-	-	0.27	-	-	-	-	0.27
Total	-	1.19	0.73	0.62	49.46	75.15	16.19	141.52	84.71	-	-	-	369.57

Table 47. 1983 British Columbia longline landings (t) of groundfish—International Area 5A, south Queen Charlotte Sound.

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Dogfish	-	-	-	-	-	-	-	-	-	-	5.75	10.24	15.99
Lingcod	-	-	-	1.26	0.36	-	-	-	0.15	-	-	-	1.77
Pacific cod	-	-	-	-	-	-	-	-	-	-	-	-	-
Rockfish	-	-	-	-	-	-	-	-	0.26	-	-	-	0.26
Sablefish	-	-	-	-	0.77	-	-	-	-	-	-	-	0.77
Misc. species	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	1.26	1.13	-	-	-	0.41	-	5.75	10.24	18.79

Table 48. 1983 British Columbia longline landings (t) of groundfish—International Area 5B, north Queen Charlotte Sound.

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Dogfish	-	-	-	-	-	-	-	-	-	-	-	-	-
Lingcod	-	-	-	-	-	-	-	-	-	-	-	-	-
Pacific cod	-	-	-	-	-	-	-	-	-	-	-	-	-
Rockfish	-	-	-	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	-	7.63	-	-	-	-	-	-	-	7.63
Misc. species	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	7.63	-	-	-	-	-	-	-	7.63

Table 49. 1983 British Columbia longline landings (t) of groundfish—International Area 5C, south Hecate Strait.

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Dogfish	-	-	-	-	-	-	-	-	-	-	-	-	-
Lingcod	-	0.13	-	-	0.83	1.49	0.02	-	-	-	-	-	2.47
Pacific cod	-	-	-	-	-	-	-	-	-	-	-	-	-
Rockfish	-	0.31	-	-	0.24	0.83	0.03	-	-	-	-	-	1.41
Sablefish	-	-	-	-	3.42	3.96	-	-	-	-	-	-	7.38
Misc. species	-	-	-	-	0.05	-	-	-	-	-	-	-	0.05
Total	-	0.44	-	-	4.54	6.28	0.05	-	-	-	-	-	11.31

Table 50. 1983 British Columbia longline landings (t) of groundfish—International Area 5D, north Hecate Strait.

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Dogfish	-	-	-	-	-	-	-	-	-	-	-	-	-
Lingcod	-	-	1.82	3.78	-	0.28	-	-	-	-	-	-	5.88
Pacific cod	-	-	-	-	-	-	0.10	0.27	0.47	-	-	-	0.84
Rockfish	-	-	0.86	3.96	-	-	0.79	1.73	0.56	-	-	-	7.90
Sablefish	-	-	-	-	2.85	21.11	8.62	21.98	20.55	-	-	-	75.11
Misc. species	-	-	0.15	-	-	-	-	-	-	-	-	-	0.15
Total	-	-	2.83	7.74	2.85	21.39	9.51	23.98	21.58	-	-	-	89.88

Table 51. 1983 British Columbia longline landings (t) of groundfish—International Area 5E, west coast of Queen Charlotte Islands.

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Dogfish	-	-	-	-	-	-	-	-	-	-	-	-	-
Lingcod	-	-	-	-	0.75	-	0.24	0.67	-	-	-	-	1.66
Pacific cod	-	-	-	-	-	-	-	-	-	-	-	-	-
Rockfish	-	-	-	-	3.02	-	0.05	4.84	-	-	-	-	7.91
Sablefish	-	-	-	-	6.13	-	-	12.48	-	-	-	-	18.61
Misc. species	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	9.90	-	0.29	17.99	-	-	-	-	28.18

Table 52. British Columbia longline landings (t) by species by minor area in 1983.

Species	Minor Area													
	1W	2AW	2BW	1E	4	2BE	5L	6	8	11	25	26	27	21
Dogfish	-	-	-	-	-	-	-	-	-	15.99	-	-	-	-
Lingcod	0.12	1.30	0.24	0.04	5.84	2.29	0.16	0.02	-	1.77	4.36	1.19	4.35	-
Pacific cod	-	-	-	0.84	-	-	-	-	-	-	-	-	-	-
Rockfish	3.11	4.75	0.05	3.01	4.89	0.81	0.57	0.03	-	0.26	2.21	-	22.31	0.03
Sablefish	8.67	9.94	-	68.83	6.28	7.38	-	-	7.63	0.77	70.87	-	264.01	-
Misc. species	-	-	-	-	0.15	-	0.05	-	-	-	-	-	0.27	-
Total	11.90	15.99	0.29	72.72	17.16	10.48	0.78	0.05	7.63	18.79	77.44	1.19	290.94	0.03

Species	Minor Area													Total
	23	24	12	13	14	15	16	17	18	19	20	28	29	
Dogfish	76.65	-	-	16.47	56.69	-	182.50	294.07	170.88	0.05	2.72	22.38	45.10	883.50
Lingcod	-	-	0.39	0.34	0.16	0.06	6.45	1.67	1.54	0.11	0.23	-	-	32.63
Pacific cod	-	-	-	-	-	-	-	0.04	0.05	-	-	-	-	0.93
Rockfish	-	-	0.87	1.89	0.36	2.71	1.45	6.66	11.24	0.15	0.04	-	0.12	67.52
Sablefish	-	8.16	-	-	-	-	-	-	-	-	-	-	-	452.54
Misc. species	-	-	0.01	-	-	-	-	0.09	0.19	-	-	-	-	0.76
Total	76.65	8.16	1.27	18.70	57.21	2.77	190.40	302.53	183.90	0.31	2.99	22.38	45.22	1437.88

Table 53. Total landings (t), monitored landings (t), and monitored effort (traps) for the British Columbia trap fleet in 1983.

	Major Area											
	4B				3C				3D			
Month	Total landings (t)	Monitored landings (t)	Monitored effort (traps)	Monitored CPUE (t/trap)	Total landings (t)	Monitored landings (t)	Monitored effort (traps)	Monitored CPUE (t/trap)	Total landings (t)	Monitored landings (t)	Monitored effort (traps)	Monitored CPUE (t/trap)
January	-	-	-	-	-	-	-	-	-	-	-	-
February	-	-	-	-	-	-	-	-	-	-	-	-
March	-	-	-	-	-	-	-	-	-	-	-	-
April	-	-	-	-	59.02	59.02	3386	0.017	28.68	28.68	1978	0.015
May	-	-	-	-	88.59	68.24	6848	0.010	33.76	8.46	832	0.010
June	-	-	-	-	34.17	14.44	2405	0.007	83.69	37.84	2501	0.015
July	-	-	-	-	19.09	-	-	-	105.88	105.88	7004	0.015
August	-	-	-	-	4.67	4.67	1045	0.004	140.31	101.00	7205	0.014
September	-	-	-	-	20.09	-	-	-	71.68	47.89	1530	0.031
October	-	-	-	-	-	-	-	-	70.63	-	-	-
November	-	-	-	-	-	-	-	-	-	-	-	-
December	-	-	-	-	8.06	8.06	660	0.012	8.71	8.71	360	0.024
Total	-	-	-	-	233.69	154.46	14344	0.011	543.34	338.46	21410	0.016

Table 53 (cont'd)

Month	Major Area 5A				5B				5C			
	Total landings (t)	Monitored landings (t)	Monitored effort (traps)	Monitored CPUE (t/trap)	Total landings (t)	Monitored landings (t)	Monitored effort (traps)	Monitored CPUE (t/trap)	Total landings (t)	Monitored landings (t)	Monitored effort (traps)	Monitored CPUE (t/trap)
January	-	-	-	-	-	-	-	-	-	-	-	-
February	-	-	-	-	-	-	-	-	11.28	-	-	-
March	-	-	-	-	-	-	-	-	-	-	-	-
April	9.07	9.07	780	0.012	-	-	-	-	9.65	-	-	-
May	74.84	74.84	5056	0.015	-	-	-	-	-	-	-	-
June	41.12	41.12	3766	0.011	226.98	226.98	16030	0.014	-	-	-	-
July	128.94	116.04	6224	0.019	156.95	156.95	7140	0.022	59.16	59.16	1800	0.033
August	89.01	89.01	9790	0.009	76.10	76.10	4565	0.017	14.23	14.18	3036	0.005
September	53.81	53.81	6820	0.008	410.55	410.55	15660	0.026	37.12	37.12	3487	0.011
October	104.38	104.38	3630	0.029	82.55	82.55	3190	0.026	-	-	-	-
November	-	-	-	-	-	-	-	-	-	-	-	-
December	1.29	1.29	120	0.011	-	-	-	-	-	-	-	-
Total	502.46	489.56	36186	0.014	953.13	953.13	46585	0.020	131.44	110.46	8323	0.013

Table 53 (cont'd)

Month	Major Area											
	5D				5E				Total			
	Total landings (t)	Monitored landings (t)	Monitored effort (traps)	Monitored CPUE (t/trap)	Total landings (t)	Monitored landings (t)	Monitored effort (traps)	Monitored CPUE (t/trap)	Total landings (t)	Monitored Landings (t)	Monitored effort (traps)	Monitored CPUE (t/trap)
January	-	-	-	-	-	-	-	-	-	-	-	-
February	-	-	-	-	-	-	-	-	11.28	-	-	-
March	-	-	-	-	35.02	35.02	2340	0.015	35.02	35.02	2340	0.015
April	-	-	-	-	-	-	-	-	106.42	96.77	6144	0.016
May	2.13	-	-	-	188.76	188.76	7260	0.026	388.08	340.30	19996	0.017
June	11.12	4.62	600	0.008	292.07	214.43	15640	0.014	689.15	539.43	40942	0.013
July	9.46	9.46	2508	0.004	-	-	-	-	479.48	447.49	24676	0.018
August	-	-	-	-	248.73	142.49	6270	0.023	573.05	427.45	31911	0.013
September	-	-	-	-	292.48	207.22	11400	0.018	885.73	756.59	38897	0.019
October	-	-	-	-	157.41	62.42	5580	0.011	414.97	249.35	12400	-
November	-	-	-	-	-	-	-	-	-	-	-	-
December	-	-	-	-	70.77	70.77	2940	0.024	88.83	88.83	4080	0.022
Total	22.71	14.08	3108	0.005	1285.24	921.11	51430	0.018	3672.01	2981.23	181386	0.016

Table 54. 1983 British Columbia trap landings (t) of groundfish--International Area 4B, Strait of Georgia.

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Lingcod	-	-	-	-	-	-	-	-	-	-	-	-	-
Rockfish	-	-	-	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 55. 1983 British Columbia trap landings (t) of groundfish--International Area 3C, southwest coast of Vancouver Island.

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Lingcod	-	-	-	-	-	-	-	-	-	-	-	-	-
Rockfish	-	-	-	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	59.02	88.59	34.17	19.09	4.67	20.09	-	-	8.06	233.69
Total	-	-	-	59.02	88.59	34.17	19.09	4.67	20.09	-	-	8.06	233.69

Table 56. 1983 British Columbia trap landings (t) of groundfish--International Area 3D, northwest coast of Vancouver Island.

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Lingcod	-	-	-	-	-	-	-	-	-	-	-	-	-
Rockfish	-	-	-	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	28.68	33.76	83.69	105.88	140.31	71.68	70.63	-	8.71	543.34
Total	-	-	-	28.68	33.76	83.69	105.88	140.31	71.68	70.63	-	8.71	543.34

Table 57. 1983 British Columbia trap landings (t) of groundfish--International Area 5A, south Queen Charlotte Sound.

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Lingcod	-	-	-	-	-	-	-	-	-	-	-	-	-
Rockfish	-	-	-	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	9.07	74.84	41.12	128.94	89.01	53.81	104.38	-	1.29	502.46
Total	-	-	-	9.07	74.84	41.12	128.94	89.01	53.81	104.38	-	1.29	502.46

Table 58. 1983 British Columbia trap landings (t) of groundfish—International Area 5B, north Queen Charlotte Sound.

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Lingcod	-	-	-	-	-	-	-	-	-	-	-	-	-
Rockfish	-	-	-	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	-	-	226.98	156.95	76.10	410.55	82.55	-	-	953.13
Total	-	-	-	-	-	226.98	156.95	76.10	410.55	82.55	-	-	953.13

Table 59. 1983 British Columbia trap landings (t) of groundfish—International Area 5C, south Hecate Strait.

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Lingcod	-	-	-	-	-	-	-	0.01	-	-	-	-	0.01
Rockfish	-	-	-	-	-	-	-	0.12	0.04	-	-	-	0.16
Sablefish	-	11.28	-	9.65	-	-	59.16	14.10	37.08	-	-	-	131.27
Total	-	11.28	-	9.65	-	-	59.16	14.23	37.12	-	-	-	131.44

Table 60. 1983 British Columbia trap landings (t) of groundfish--International Area 5D, north Hecate Strait.

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Lingcod	-	-	-	-	0.01	-	-	-	-	-	-	-	0.01
Rockfish	-	-	-	-	-	-	0.06	-	-	-	-	-	0.06
Sablefish	-	-	-	-	2.12	11.12	9.40	-	-	-	-	-	22.64
Total	-	-	-	-	2.13	11.12	9.46	-	-	-	-	-	22.71

Table 61. 1983 British Columbia trap landings (t) of groundfish--International Area 5E, west coast Queen Charlotte Islands.

Species	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Lingcod	-	-	-	-	-	-	-	-	-	-	-	-	-
Rockfish	-	-	-	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	35.02	-	188.76	292.07	-	248.73	292.48	157.41	-	70.77	1285.24
Total	-	-	35.02	-	188.76	292.07	-	248.73	292.48	157.41	-	70.77	1285.24

Table 62. British Columbia trap landings (t) by species by minor area in 1983.

	Minor Area							
Species	1W	2AW	2BW	4	2BE	5L	8	11
Lingcod	-	-	-	0.01	-	0.01	-	-
Rockfish	-	-	-	0.06	-	0.16	-	-
Sablefish	119.02	780.53	385.69	22.64	59.16	72.11	953.13	502.46
Total	119.02	780.53	385.69	22.71	59.16	72.28	953.13	502.46

	Minor Area						
Species	25	26	27	21	23	24	Total
Lingcod	-	-	-	-	-	-	0.02
Rockfish	-	-	-	-	-	-	0.22
Sablefish	218.52	147.39	177.43	1.64	133.10	98.95	3671.77
Total	218.52	147.39	177.43	1.64	133.10	98.95	3672.01

JOINT-VENTURE/FOREIGN FISHERIES

Since 1978, Canadian trawlers have participated in joint-venture fisheries. Canadian catcher vessels delivered Pacific hake and incidental species to foreign processing vessels in cooperative fishing arrangements. These fisheries have taken place off the southwest coast of Vancouver Island (Area 3C). These data are separated from the domestic landings because the joint-venture and foreign catches (converted from processed weight) are reported by the foreign processing vessels and cannot be verified by weight tallies.

In 1983, eighteen Canadian catcher vessels delivered 27,656 t of Pacific hake to nine processing vessels. Five Polish vessels and four Soviet vessels participated in this fishery. The joint-venture catches of groundfish for 1981-83 are presented in Table 63.

Other countries have conducted national fisheries for Pacific hake off the southwest coast of Vancouver Island for several years. Several of the processing vessels involved in the joint-venture fishery occasionally fished directly (supplemental fishing) when Canadian domestic vessels could not supply sufficient quantities of Pacific hake. This supplemental catch is added to the national catch. In 1983, five Polish vessels caught 12,556 t (national catch) and 621 t (supplemental catch) of Pacific hake. The foreign fishery catches of groundfish for 1981-83 are presented in Table 64.

Table 63. Joint-venture catches[a] (t) of groundfish from International Area 3C--Southwest coast of Vancouver Island, 1981-1983.

Nation and Species	Year		
	1981	1982	1983
Poland			
hake	4,998.41	10,278.95	13,465.06
Pollock	176.44	222.49	6.40
Pacific ocean perch	2.09	0.48	0.25
Other rockfish	31.66	22.82	24.38
USSR			
Hake	7,231.93	9,396.55	14,191.56
Pollock	296.56	137.58	-
Pacific ocean perch	0.83	-	-
Other rockfish	26.16	30.95	25.49
Greece			
Hake	4,928.56	-	-
Pollock	300.57	-	-
Pacific ocean perch	-	-	-
Other rockfish	38.08	-	-
Total			
Hake	17,158.90	19,675.50	27,656.62
Pollock	773.57	360.07	6.40
Pacific ocean perch	2.92	0.48	0.25
Other rockfish	95.90	53.77	49.87

[a]Catches (converted from processed weight) are reported by foreign processing vessels and cannot be verified by weight tallies.

Table 64. Foreign catches (t) of groundfish from International Area 3C--Southwest coast of Vancouver Island, 1981-1983.

Nation and Species	Year					
	1981		1982		1983	
	National	Supplemental	National	Supplemental	National	Supplemental
Japan						
Hake	188.63	-	2,234.38	-	-	-
Pollock	8.73	-	37.33	-	-	-
Pacific ocean perch	-	-	0.28	-	-	-
Other rockfish	25.33	-	41.09	-	-	-
Poland						
Hake	3004.21	254.03	8950.57	1294.68	12555.81	621.23
Pollock	128.55	8.90	438.34	28.73	9.89	3.06
Pacific ocean perch	5.09	-	6.17	0.15	27.20	16.46
Other rockfish	45.05	2.89	153.05	32.02	270.95	6.08
USSR						
Hake	-	197.87	-	-	-	-
Pollock	-	12.28	-	-	-	-
Pacific ocean perch	-	-	-	-	-	-
Other rockfish	-	0.32	-	-	-	-
Total						
Hake	3,192.84	451.90	11,184.95	1,294.68	12,555.81	621.23
Pollock	137.28	21.18	475.67	28.73	9.89	3.06
Pacific ocean perch	5.09	-	6.45	0.15	27.20	16.46
Other rockfish	70.38	3.21	194.14	32.02	270.95	6.08

[a]Catches (converted from processed weights) are reported by foreign vessels and cannot be verified by weight tallies.

CATCHES BY INPFC AREA

This report is also produced to satisfy requirements of committees of the International North Pacific Fisheries Commission (INPFC) (Canada, Japan and United States). To complement the previous tables, groundfish landings in metric tonnes(t) are presented in Tables 65-67 for trawl and other gears according to INPFC areas. The relationship between these INPFC areas and the major areas used in the first portion of this report is as follows:

INPFC Area	Major Area	Latitude
Charlotte	5A, 5B, 5C, 5D, 5E[5]	50°30'N - 54°30'N
Vancouver	3B[6], 3C[6], 3D, 4B[7]	47°30'N - 50°30'N

[5]Northernmost 10 miles actually in Southeastern.
[6]Southernmost 10 miles actually in Columbia.
[7]Inside waters (Strait of Georgia).

Table 65. British Columbia landings (t) of groundfish taken by all types of gear in 1983 by INPFC area.

Species	INPFC Area		
	Vancouver	Charlotte	Total
English sole	83.08	448.46	531.54
Rock sole	90.39	577.74	668.13
Petrale sole	220.26	218.92	439.18
Dover sole	143.48	727.87	871.35
Rex sole	0.89	48.09	48.98
Starry flounder	29.91	35.91	65.82
Turbot	58.72	264.79	323.51
Other flatfish	181.45	17.31	198.76
Pacific cod	1604.55	2900.81	4505.36
Lingcod	2092.61	1662.03	3754.64
Sablefish	1279.78	3134.03	4413.81
Pollock	29.13	1041.11	1070.24
Hake[a]	3121.55	-	3121.55
Pacific ocean perch	837.30	4817.45	5654.75
Other rockfish	2504.31	4519.71	7024.02
Misc. species	36.83	118.75	155.58
Dogfish	1806.48	43.76	1850.24
Animal food	-	94.12	94.12
Reduction	147.19	174.29	321.48
Total	14,267.91	20,845.15	35,113.06

[a]Domestic fishery only. Does not include joint-venture or foreign catches, see Tables 63 and 64.

Table 66. British Columbia trawl landings (t) of groundfish in 1983 by INPFC area.

Species	INPFC Area		
	Vancouver	Charlotte	Total
English sole	83.08	448.46	531.54
Rock sole	90.39	577.74	668.13
Petrale sole	220.26	218.92	439.18
Dover sole	143.48	727.87	871.35
Rex sole	0.89	48.09	48.98
Starry flounder	29.91	35.91	65.82
Turbot	58.72	264.79	323.51
Other flatfish	181.45	17.31	198.76
Pacific cod	1597.85	2898.21	4496.06
Lingcod	1498.37	1490.02	2988.39
Sablefish	157.57	116.46	274.03
Pollock	29.13	1041.11	1070.24
Hake[a]	3121.55	-	3121.55
Pacific ocean perch	837.30	4817.45	5654.75
Other rockfish	2130.76	4427.98	6558.74
Misc. species	36.27	118.55	154.82
Dogfish	938.97	27.77	966.74
Animal food	-	94.12	94.12
Reduction	147.19	174.29	321.48
Total	11,303.14	17,545.05	28,848.19
Effort (h)	15,889	17,399	33,288

[a]Domestic fishery only. Does not include joint-venture or foreign catches, see Tables 63 and 64.

Table 67. British Columbia landings (t) of groundfish caught by gear other than trawl in 1983 by INPFC area.

Species and gear	INPFC Area		Total
	Vancouver	Charlotte	
Handline and troll			
Lingcod	566.55	115.11	681.66
Pacific cod	6.59	1.73	8.32
Rockfish	318.95	29.71	348.66
Sablefish	1.94	10.29	12.23
Incidental to halibut longline			
Lingcod	6.84	45.10	51.94
Pacific cod	0.02	0.03	0.05
Rockfish	4.56	44.32	48.88
Sablefish	0.20	3.04	3.24
Longline			
Dogfish	867.51	15.99	883.50
Lingcod	20.85	11.78	32.63
Pacific cod	0.09	0.84	0.93
Rockfish	50.04	17.48	67.52
Sablefish	343.04	109.50	452.54
Misc. species	0.56	0.20	0.76
Trap			
Lingcod	-	0.02	0.02
Rockfish	-	0.22	0.22
Sablefish	777.03	2894.74	3671.77
Total	2964.77	3300.10	6264.87

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